Appendix A: Task Force Meeting Materials

Attachment 1
Task Force Meeting Schedule

DATE	LOCATION
June 2, 2025	Kearney
September 24, 2025	Kearney
December 16, 2026	Norfolk
March 25, 2026	Lincoln

Attachment 2
Meeting Notices and Affidavits of Publication

PUBLIC NOTICE

MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on June 2, 2025, beginning at 10:00 A.M. Central Time (CT) at the Kearney Holiday Inn, 110 2nd Avenue, Kearney, Nebraska 68847.

The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Natural Resources, 245 Fallbrook Blvd, Suite 201, Lincoln, Nebraska 68521 and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Please contact BJ Green at (402) 471-2363 by May 30, 2025 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.

Omaha World-Herald

PROOF OF PUBLICATION

See Proof on Next Page

AFFIDAVIT

State of Florida , County of Orange , ss:

I, Ankit Sachdeva being of lawful age, being duly sworn upon oath, hereby depose and say that I am agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Omaha World Herald, a legal daily newspaper printed and published in the counties of Douglas and Cass and State of Nebraska, and of general circulation in the Counties of Douglas, and Sarpy and State of Nebraska, and that the attached printed notice was published in said newspaper on the dates stated below and that said newspaper is a legal newspaper under the statutes of the State of Nebraska.

PUBLICATION DATES:
May. 28, 2025

NOTICE NAME: WQQ Task Force Mtg Notice

PUBLICATION FEE: $31.60

Ankit Sachdeva

(Signed)_____

JESSICA GORDON-THOMPSON
Notary Public - State of Florida
Commission # HH301656
Expires on August 17, 2026

VERIFICATION

State of Florida
County of Orange

Subscribed in my presence and sworn to before me on this: 05/30/2025

_____
Notary Public

Notarized remotely online using communication technology via Proof.

PUBLIC NOTICE

MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on June 2, 2025, beginning at 10:00 A.M. Central Time (CT) at the Kearney Holiday Inn, 110 2nd Avenue, Kearney, Nebraska 68847. The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Natural Resources, 245 Fallbrook Blvd, Suite 201, Lincoln, Nebraska 68521 and online at: https://dnr.nebraska.gov/water-quality-and- quantity-task-force.

Please contact BJ Green at (402) 471-2363 by May 30, 2025 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.

2025, (5) 28 - Wednesdays, ZNEZ

PUBLIC NOTICE

MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on September 24, 2025, beginning at 1:00P.M. Central Time (CT) at the Younes Conference Center North, 707 W. Talmadge St, Kearney, Nebraska 68845.

The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Water, Energy, and Environment, 245 Fallbrook Blvd, Suite 100, Lincoln, Nebraska 68521 and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Please contact BJ Green at (402) 471-2186 by September 22, 2025 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.

Omaha World-Herald

PROOF OF PUBLICATION

AFFIDAVIT

State of Florida, County of Broward, ss:

I, Anjana Bhadoriya, being of lawful age, being duly sworn upon oath, hereby depose and say that I am agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Omaha World Herald, a legal daily newspaper printed and published in the counties of Douglas and Cass and State of Nebraska, and of general circulation in the Counties of Douglas, and Sarpy and State of Nebraska, and that the attached printed notice was published in said newspaper on the dates stated below and that said newspaper is a legal newspaper under the statutes of the State of Nebraska.

PUBLICATION DATES:
Sep. 17, 2025

NOTICE NAME: WQQTF_mtg_09242025

PUBLICATION FEE: $32.20

Anjana Bhadoriya

(Signed)_____

SHERI SMITH
Notary Public - State of Florida
Commission # HH269383
Expires on May 31, 2026

VERIFICATION

State of Florida
County of Broward

Subscribed in my presence and sworn to before me on this: 09/17/2025

S Smith
_____
Notary Public

Notarized remotely online using communication technology via Proof.

PUBLIC NOTICE
MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on September 24, 2025, beginning at 1:00P.M. Central Time (CT) at the Younes Conference Center North, 707 W. Talmadge St, Kearney, Nebraska 68845. The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Water, Energy, and Environment, 245 Fallbrook Blvd, Suite 100, Lincoln, Nebraska 68521 and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Please contact BJ Green at (402) 471-2186 by September 22, 2025 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.

2025, (9) 17 - Wednesdays, ZNEZ

PUBLIC NOTICE

MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on December 16, 2025, beginning at 1:00P.M. Central Time (CT) at the Divots Conference Center, 4200 W Norfolk Ave, Norfolk, Nebraska 68701.

The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Water, Energy, and Environment, 245 Fallbrook Blvd, Suite 100, Lincoln, Nebraska 68521 and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Please contact BJ Green at (402) 471-2186 by December 12, 2025 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.

Omaha World-Herald

PROOF OF PUBLICATION

AFFIDAVIT

State of Florida, County of Orange, ss:

I, Ankit Sachdeva, being of lawful age, being duly sworn upon oath, hereby depose and say that I am agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Omaha World Herald, a legal daily newspaper printed and published in the counties of Douglas and Cass and State of Nebraska, and of general circulation in the Counties of Douglas, and Sarpy and State of Nebraska, and that the attached printed notice was published in said newspaper on the dates stated below and that said newspaper is a legal newspaper under the statutes of the State of Nebraska.

PUBLICATION DATES:
Dec. 9, 2025

NOTICE NAME: WQQTF_Mtg_Notice

PUBLICATION FEE: $32.80

Ankit Sachdeva

(Signed)_____

VERIFICATION

State of Florida
County of Orange

JESSICA GORDON-THOMPSON
Notary Public - State of Florida
Commission # HH301656
Expires on August 17, 2026

Subscribed in my presence and sworn to before me on this: 12/10/2025

_____
Notary Public

Notarized remotely online using communication technology via Proof.

PUBLIC NOTICE
MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on December 16, 2025, beginning at 1:00P.M. Central Time (CT) at the Divots Conference Center, 4200 W Norfolk Ave, Norfolk, Nebraska 68701.
The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Water, Energy, and Environment, 245 Fallbrook Blvd, Suite 100, Lincoln, Nebraska 68521 and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force .
Please contact BJ Green at (402) 471-2186 by December 12, 2025 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.
2025, (12) 9 - Tuesdays, ZNEZ

PUBLIC NOTICE

MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on March 25, 2026, beginning at 9:00AM. Central Time (CT) at the Department of Water, Energy, and Environment Office, Hearing Room 031, 245 Fallbrook Blvd., Lincoln, Nebraska 68521.

The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Water, Energy, and Environment and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Please contact BJ Green at (402) 471-2186 by March 20, 2026 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.

Omaha World-Herald

PROOF OF PUBLICATION

AFFIDAVIT

State of Florida, County of Orange, ss:

I, Anjana Bhadoriya, being of lawful age, being duly sworn upon oath, hereby depose and say that I am agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Omaha World Herald, a legal daily newspaper printed and published in the counties of Douglas and Cass and State of Nebraska, and of general circulation in the Counties of Douglas, and Sarpy and State of Nebraska, and that the attached printed notice was published in said newspaper on the dates stated below and that said newspaper is a legal newspaper under the statutes of the State of Nebraska.

PUBLICATION DATES:
Mar. 18, 2026

NOTICE NAME: WQQTF 03.25.2026 Mtg Notice

PUBLICATION FEE: $32.20

Anjana Bhadoriya

(Signed)_____

VERIFICATION

State of Florida
County of Orange

JESSICA GORDON-THOMPSON
Notary Public - State of Florida
Commission # HH301656
Expires on August 17, 2026

Subscribed in my presence and sworn to before me on this: 03/18/2026

_____
Notary Public

Notarized remotely online using communication technology via Proof.

PUBLIC NOTICE
MEETING OF GOVERNOR'S WATER QUALITY AND QUANTITY TASK FORCE

NOTICE IS HEREBY GIVEN pursuant to Neb. Rev. Stat. § 84-1411, that the Governor's Water Quality and Quantity Task Force will hold a public meeting on March 25, 2026, beginning at 9:00AM. Central Time (CT) at the Department of Water, Energy, and Environment Office, Hearing Room 031, 245 Fallbrook Blvd., Lincoln, Nebraska 68521.
The meeting agenda, which is being kept continually current, is available for inspection during normal business hours at the office of the Department of Water, Energy, and Environment and online at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force .
Please contact BJ Green at (402) 471-2186 by March 20, 2026 if auxiliary aids or reasonable accommodations or alternate formats of materials are needed.
2026, (3) 18 - Wednesdays, ZNEZ

Attachment 3
Meeting Agendas

Agenda

Governor's Water Quality and Quantity Task Force
June 2, 2025
Kearney Holiday Inn, 110 2nd Avenue, Kearney, NE 68847
10:00 AM – Noon (Central)

1. Introductions (20 minutes)

2. Overview of Task Force Goals (15 minutes)

3. Presentation of State Water Quality and Quantity Programs (20 minutes)

4. Subcommittee Formation and Discussion (30 minutes)

A. **Financing and Incentives Committee**
B. **Nitrate Legacy and Drinking Water Access Committee**
C. **Water Conservation and Quantity Committee**
D. **Methods and Resources Committee**

5. Homework - Strategies for Driving Change (10 minutes)

6. Scheduling and Logistics (10 minutes)

7. Public Comment (15 minutes)

8. Adjourn

Agenda

Governor's Water Quality and Quantity Task Force
September 24, 2025
Younes Conference Center North (707 W. Talmadge St, Kearney, NE 68845)
1:00p.m. – 4:00p.m. (Central)

1. **Open Meetings Act Information**
2. **Approval of minutes from 6/2/2025**
3. **Presentations**
    A. **Producer Connect**
    B. **Nitrogen Use Efficiency Dashboard**
4. **Subcommittee Updates**
    A. **Financing and Incentives Committee**
    B. **Nitrate Legacy and Drinking Water Access Committee**
    C. **Water Conservation and Quantity Committee**
    D. **Methods and Resources Committee**
5. **Scheduling and Logistics**
    A. **Next Task Force Meeting: December 16, 2025**
6. **Public Comment**
7. **Adjourn**

Agenda

Governor's Water Quality and Quantity Task Force
December 16, 2025
Divots Conference Center (4200 W Norfolk Ave, Norfolk, NE 68701)
1:00p.m. – 4:00p.m. (Central)

1. **Open Meetings Act Information**
2. **Approval of minutes from 9/24/2025**
3. **Final Subcommittee Recommendations**
    A. **Methods and Resources Subcommittee**
    B. **Nitrate Legacy and Drinking Water Access Subcommittee**
    C. **Water Conservation and Quantity Subcommittee**
    D. **Financing and Incentives Subcommittee**
4. **Scheduling and Logistics**
    A. **Next Task Force Meeting: March 25, 2026 (Lincoln)**
5. **Public Comment**
6. **Adjourn**

Agenda

Governor's Water Quality and Quantity Task Force
March 25, 2026
Dept. of Water, Energy, and Environment Office
Hearing Room 031, 245 Fallbrook Blvd., Lincoln, NE 68521
9:00a.m. – 11:00a.m. (Central)

1. **Open Meetings Act Information**
2. **Approval of Meeting Minutes from 12/16/2025**
3. **Presentation: Overview of Task Force Final Recommendations**
4. **Approval of Final Task Force Report**
5. **Public Comment**
6. **Adjourn**

Attachment 4
Meeting Minutes

Governor's Water Quality and Quantity Task Force
Meeting Minutes
Monday, June 2, 2025
Kearney Holiday Inn
110 2nd Avenue, Kearney, NE 68847

Members Present: Joe Anderjaska, Brittany Bartak, Don Batie, Jesse Bradley, Brian Bruckner, Devin Brundage, Russ Callan, Tom Downey, Jessica Groskopf, Brandon Hunnicutt, Brian Kissinger, Scott Knobbe, Steve Kyes, Matt Manning, Scott Schaneman, John Shadle, Marty Stange, Annette Sudbeck

Members Absent: Tim Mundorf & Dean Settje

Staff and Audience Present: Isabella Peterson, Nebraska Department of Natural Resources; Cicely Wardyn, Governor's Policy Research Office; Andrew Dunkley, Nebraska Department of Environment and Energy; Tylr Naprstek, Lower Loup NRD; Josh Jelden, U.S. Sen. Deb Fischer's Office; Mick Reynolds; Kristine Jameson; Erica Gnuse, Ducks Unlimited; Jeff Shafer, NPPD; Lyndon Vogt, Central Platte NRD; Joshua Shimkus, Flatwater Free Press; Chance Thayer; Walt Traudt, Nebraska Pork Producers; Seth Mitchell, Nebraska Pork Producers; David Kracman; Samantha Dowler; Dean Edson, NARD; James Banahan, Central Valley Ag; Michael Dibbern, NeCGA; Sarah Cathcart, Sen. Pete Ricketts Office; Heidi Borg, Congressman Adrian Smith's Office.

The meeting was called to order at 9:57 a.m. by Jesse Bradley. Bradley stated that the meeting was being conducted in accordance with the Nebraska Open Meetings Act and a copy of the current Open Meetings Act was posted and available for inspection and review on the south wall of the room. Bradley stated that a public meeting notice was published in the Omaha World Herald newspaper and the Nebraska Department of Natural Resources website in accordance with state law.

Governor Jim Pillen gave opening remarks and addressed members about why he initiated the Task Force.

Task Force members and support staff went around the room and gave introductions.

Bradley provided an overview of three initial broad goals for the Task Force, including: (1) identify strategies to promote improved on-farm nitrogen management efficiency, (2) review available resources that support the use of real-time data in water management and recommend strategies to increase their adoption, and (3) develop short-term, mid-term, and long-term goals to monitor outcomes. Bradley noted that these goals may change over time as the Task Force continues to meet and discuss.

Bradley gave a presentation on water quality and quantity programs currently being implemented by the state. The presentation can be found on the Task Force webpage at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Members discussed subcommittee assignments and reviewed a handout with potential discussion topics for each subcommittee, a copy of which can be found on the Task Force webpage. It was noted that additional subcommittees may be identified and formed as the Task Force continues to meet and discuss. The following assignments for subcommittees were made:

Financing and Incentives Subcommittee
- Jessica Groskopf
- Jesse Bradley
- Brandon Hunnicutt
- Devin Brundage

Nitrate Legacy and Drinking Water Access Subcommittee
- Dean Settje
- Marty Stange
- Brian Bruckner
- Annette Sudbeck
- Tom Downey
- Matt Manning

Water Conservation and Quantity Subcommittee
- Scott Schaneman
- Steve Kyes
- Don Batie
- Russ Callan
- John Shadle
- Devin Brundage
- Brian Bruckner
- Matt Manning

Methods and Resources Committee
- Tim Mundorf
- Joe Anderjaska
- Scott Knobbe
- Don Batie
- Russ Callan
- Brittany Bartak
- Annette Sudbeck
- Brian Kissinger
- Jesse Bradley

Members expressed willingness and preference to have in-person subcommittee meetings. Bradley noted that Department staff will help coordinate future Task Force meeting dates and help initiate first subcommittee discussions. Members discussed a tentative meeting schedule of monthly subcommittee meetings and full Task Force meetings once a quarter – agreeing that the next full Task Force meetings should take

place in September and December. Subcommittees will meet in the interim and report back to the full group at the next Task Force meeting.

Don Batie informed the group that there will be a field day at his farm on June 24th.

Bradley opened the meeting for public comment. There was no public comment.

The meeting adjourned at 11:33 a.m.

Notice for the meeting was published on the Department of Natural Resources website on May 21, 2025 and in the Omaha World Herald newspaper on May 28, 2025.

Governor's Water Quality and Quantity Task Force
Meeting Minutes
Wednesday, September 24, 2025
Younes Conference Center North
707 W. Talmadge St. Kearney, NE 68845

Members Present: Joe Anderjaska, Brittany Bartak, Don Batie, Jesse Bradley, Brian Bruckner, Devin Brundage, Russ Callan, Tom Downey, Jessica Groskopf, Brandon Hunnicutt, Brian Kissinger, Scott Knobbe, Matt Manning, Tim Mundorf, Scott Schaneman, John Shadle, Marty Stange, Annette Sudbeck

Members Absent: Steve Kyes & Dean Settje

Staff and Audience Present: Isabella Peterson, Nebraska Department of Water, Energy, and Environment; Cicely Wardyn, Governor's Policy Research Office; Wade Ellwanger, Lower Niobrara NRD; Tylr Naprstek, Lower Loup NRD; John Thorburn Tri-Basin NRD; Jeff Shafer, NPPD; Jennifer Swanson, NARD; Lyndon Vogt, Central Platte NRD; Dustin Wilcox, NARD; Courtney Widup, Central Platte NRD.

The meeting was called to order at 1:00p.m. by Jesse Bradley. Bradley stated that the meeting was being conducted in accordance with the Nebraska Open Meetings Act and a copy of the current Open Meetings Act was posted and available for inspection and review near the back of the room. Bradley stated that a public meeting notice was published in the Omaha World Herald newspaper and the Nebraska Department of Water, Energy, and Environment's website on September 17, 2025 in accordance with state law.

Approval of Meeting Minutes from 6/2/2025

Brundage moved and Hunnicutt seconded the motion to approve the Task Force meeting minutes from June 2, 2025. There was no opposition. Motion carried.

Presentations

Jennifer Swanson, NARD, gave a presentation on the Producer Connect platform. Courtney Widup, Central Platte NRD, gave a presentation on the Nitrogen Use Efficiency Dashboard. The presentations can be found on the Task Force webpage at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Members took a break from 2:08 to 2:20pm.

Bradley gave an overview of Task Force goals looking forward, noting that the group should work toward having their goals translated into short-, mid-, and long-term goals with action items between now and December. The tentative goal is to finalize and

publicize the report at a final meeting in March. The Task Force has meetings scheduled out until June of 2026, but want to be respectful of everyone's time.

Subcommittee Updates

Each subcommittee provided updates to the group.

A. Financing & Incentives

Hunnicutt gave the report for the Financing and Incentives Subcommittee. The goals are as follows:

1. Establish a centralized clearinghouse to inventory, manage, and prioritize water quality and quantity projects across Nebraska
2. Identify and implement sustainable, diversified funding models to support the development, implementation, and maintenance of priority water projects in Nebraska

B. Nitrate Legacy & Drinking Water Access

Stange gave the report for the Nitrate Legacy & Drinking Water Access Subcommittee. The goals are as follows:

1. Develop and consistent education, marketing, and outreach program across the state
    i. Statewide, but look at local issues
    ii. Aimed at the general population and those who can make a difference including producers, agronomists, well drillers, etc.
2. Develop data and planning to support community water system protections
    i. Wellhead protection areas
    ii. Water use and quality information to NRDs, DWEE, communities
    iii. Smaller communities
3. Expand rural water systems and regionalization of water systems
    i. Get the data in the hands of the decisionmakers
    ii. Work to promote nutrient management and bring in the experts

C. Water Conservation & Quantity

Schaneman gave the report for the Water Conservation & Quantity Subcommittee. The goals are as follows:

1. Expand metering and measurement across the state

    i. This would be long-term, bigger goal that could include legislative changes
    ii. Public perception is important and must address that allocations and taxes are not coming next, but the goal is to measure what you are using; need standard messaging
    iii. Many NRDs have already done this and we can look to them as case studies and see lessons learned
    iv. Data privacy must be addressed; data individual level at the NRD, but aggregate when passed along to the State
    v. Consider NRD administrative costs and resources
    vi. Must consider surface water users and small districts with limited funds
    vii. Education component
    viii. Nebraska is a leader in water management, and this goal aligns with that
2. Develop strategies to support large water users and continued economic growth
    i. Law that applies to Upper Platte could be a template for other areas of the state
    ii. Don't want to hinder economic growth, but must offset new large water users coming in
    iii. Establish increased communication with economic development folks
3. Expand water storage opportunities and management of water consumption
    i. Address efficiency in practices that may hinder return flows
    ii. Incentives and education components

D. Methods & Resources

Batie gave the report for the Methods & Resources Subcommittee. The goals are as follows:

1. Create standards that ensure proper nitrogen recommendations being provided to farmers
    i. Professional certification to sign off on N recommendations
    ii. Integrate with UNL to do online certifications
    iii. Use well drillers as a case study
2. Increase the percentage of nitrogen that is applied during the growing season

    i. Incentivize and promote fertigation, side dress, water amount
    ii. Must address what types of fertilizer
    iii. Education
3. Support movement toward sensor- and model-based nitrogen recommendations
    i. Sentinel, Adapt N, etc.
4. All producers in all phase areas of all NRDs utilize tools like Producer Connect in order to increase benchmarking and aggregate data

Members discussed how to frame goals with timeframes and whether some goals were more regulatory than incentive or education based. Wardyn offered the example of the E-15 bill structure in which incentives are offered on the front end and if certain targets are not met by a certain date, regulatory components are triggered. Members noted that there are many goals that can utilize incentives to target behavioral changes, including using ONE RED money on the front end, and then structure the goals to pivot to a plan B if metrics are not met and widespread behavioral changes are not made.

Scheduling & Logistics

Members confirmed availability for upcoming subcommittee meetings for October and November. The next full Task Force meeting will be held December 16, 2025 in Kearney.

Public Comment

John Thorburn, Tri-Basin NRD stated that some of the recommendations related to crop consultants may not be feasible and that if the type of fertilizer recommendations are changed and the nitrogen still goes into the aquifer, then there is no gain.

The meeting adjourned at 3:39p.m.

Governor's Water Quality and Quantity Task Force
Meeting Minutes
Tuesday, December 16, 2025
Divots Conference Center
4200 W Norfolk Ave, Norfolk, NE 68701

Members Present: Joe Anderjaska, Jesse Bradley, Brian Bruckner, Devin Brundage, Russ Callan, Tom Downey, Jessica Groskopf, Brandon Hunnicutt, Brian Kissinger, Scott Knobbe, Steve Kyes, Matt Manning, Tim Mundorf, Scott Schaneman, Dean Settje, John Shadle, Marty Stange, Annette Sudbeck

Members Absent: Brittany Bartak, Don Batie

Staff and Audience Present: Isabella Peterson, Nebraska Department of Water, Energy, and Environment (DWEE); Clint Verner, Legislative Fiscal Office; Mike Murphy, Middle Niobrara Natural Resources District (NRD); Mark Hall; Wade Ellwanger, Lower Niobrara NRD; Traci Bruckner, Audubon Great Plains; Melissa Temple, Lower Elkhorn NRD; Sara Mechtenberg, Houston Engineering; Crystal Powers, UNL Extension; Chittaranjan Ray, UNL Nebraska Water Center; Jacob Garder, Houston Engineering; Jonathan Rempel; Audrey Woita, Hillside Solutions; Rachel Whitehair, Nebraska Corn Board.

Open Meetings Act Information: The meeting was called to order at 1:16 p.m. by Jesse Bradley. Bradley stated that the meeting was being conducted in accordance with the Nebraska Open Meetings Act and a copy of the current Open Meetings Act was posted and available for inspection and review near the back of the room. Bradley stated that a public meeting notice was published in the Omaha World Herald newspaper and the Nebraska Department of Water, Energy, and Environment's website on December 9, 2025 in accordance with state law.

Task Force members and audience introduced themselves. Governor Jim Pillen thanked the Task Force members for their commitment and the time dedicated over the past six months to advancing water quality and quantity discussions.

Approval of Meeting Minutes from 9/24/2025: Groskopf moved, and Sudbeck seconded, a motion to approve the Task Force meeting minutes from September 24, 2025. There was no opposition. Motion carried.

Final Subcommittee Recommendations: Subcommittee chairpersons presented overviews of the goals and action items developed by each subcommittee. Members reviewed a

redline draft document that was provided as a handout, which will also be posted to the Task Force webpage.

A. Methods and Resources Subcommittee

Report by Mundorf, on behalf of Chairperson Batie.

Goal 1 is to ensure nitrogen recommendations are agronomically, economically, and environmentally appropriate for Nebraska producers. Discussion focused on educating individuals who provide nitrogen recommendations, including consideration of a certified crop advisor program and potential use of an existing UNL online certification and badging platform.

Goal 2 is to incentivize producers to increase the percentage of nitrogen that is applied in season versus out of season to improve overall nitrogen use efficiency. The aim is to decrease the amount of fall-applied anhydrous ammonia and move toward more in-season nitrogen application. Members discussed variability in fertilizer timing practices across the state and the importance of understanding spring versus fall application rates.

Goal 3 is to increase adoption of sensor- and model-based nitrogen recommendation technology, such as Sentinel Ag, Adapt-N, or similar technologies. Fertigation was highlighted as a strategy to apply nitrogen later in the season based on crop need. Members emphasized inclusion of dryland practices and appropriate incentives for non-irrigated operations.

Goal 4 is to increase adoption of soil health practices which will allow producers to increase nutrient cycling and reduce overall nitrogen application rates over time. Improved soil health will also maximize water infiltration and crop utilization while limiting runoff.

Goal 5 is to educate Nebraska producers on nitrogen fertilizer and irrigation best management practices to limit nitrate leaching to groundwater. This goal focuses on nitrogen fertilizer and irrigation best management practices to limit nitrate leaching to groundwater. Includes irrigation technologies, inhibitors, in-season application of nitrogen, soil moisture probes, water meters, irrigation modeling, and evapotranspiration monitoring.

B. Nitrate Legacy & Drinking Water Access Subcommittee

Report by Chairperson Stange.

Goal 6 is to develop consistent education, marketing, and outreach materials related to water quality, quantity, and public health for use across the state. Stange noted some of the timeframes are aggressive, but that is because there are a lot of existing educational materials out there. Existing resources will be organized into a uniform framework while

allowing for local variation. Members noted the importance of outreach to medical providers serving rural communities.

Goal 7 is to provide support and resources to public and privately owned drinking water wells to ensure safe and reliable drinking water for Nebraskans. Discussion emphasized the need for improved planning tools and better communication of nitrate trends, including potential outreach to realtors.

Goal 8 is to expand rural water systems and regionalization of water systems. The goal is to connect communities with limited water resources to systems with greater capacity. Members emphasized coordination among NRDs, DWEE, communities, and municipalities, as well as addressing financial barriers through loans and other assistance.

C. Water Conservation & Quantity Subcommittee

Report by Chairperson Schaneman.

Goal 9 is to expand water measurement across the state for groundwater and surface water. Members discussed integrating data into Producer Connect or a similar NRD database, while addressing data security concerns. Survey results indicated that more than 50% of wells statewide are already metered, with some NRDs fully metered. Real-time metering was discussed, including benefits and challenges.

Goal 10 is to develop strategies to support large water users and continued economic growth in the State, noting that concerns exist regarding water availability for industries, especially in water-short areas. This purpose of this goal is to determine how to accommodate industry water needs, starting with launching a public-facing portal within 18 months. Members noted that a statewide “large water user rule” has been in place since 2012, but the definition of “large water user” is generic. Callan noted that Lower Loup NRD is currently working with HDR to define “large water user” based on variations throughout the district, with the aim being to require users exceeding a certain threshold to demonstrate they are not causing adverse effects. Integration of economic development professionals into water availability discussions was emphasized.

Goal 11 is to expand water storage opportunities and management of water consumption, noting that opportunities exist to work with surface water entities to recharge groundwater. Strategies include reservoirs, recharge systems, and retention projects, as well as outreach to educate stakeholders. Metrics include development of a public resource or map identifying storage opportunities and increased stakeholder engagement.

D. Financing and Incentives Subcommittee

Report by Chairperson Hunnicutt.

Goal 12 is to establish a centralized clearinghouse to inventory and prioritize water quality and quantity projects across Nebraska. The clearinghouse will be updated annually to reassess priorities and monitor progress.

Goal 13 is to identify and implement sustainable, diversified funding models to support the development, implementation, and maintenance of priority water projects in Nebraska. DWEE will conduct a funding analysis to identify existing resources, gaps, limitations, and overlaps. Members discussed opportunities to leverage private investment and the value of a clearinghouse in directing outside funding to Nebraska projects. Bradley provided an example that Google is already working with farmers in the state on various projects. Creating a clearinghouse can help to guide outside investments to specific projects – the goal is to make it easy for them to choose Nebraska over other states for funding.

Goal 14 is to recommend funding priorities for ONE RED funding and other potential funding sources. Discussion focused on developing a tiered incentive program informed by ONE RED survey results provided in a handout and effectively communicating market value and education benefits to producers and crop consultants.

Scheduling and Logistics

Bradley outlined next steps for the Task Force. A full draft report will be distributed to the Task Force in about a month. Members will have from mid-January through mid-February to review again and provide additional comments. The final report is expected to be completed by the March meeting.

The next full Task Force meeting will be held March 25, 2026 in Lincoln (location to be determined). Meeting materials will continue to be updated on the Task Force webpage at: https://dnr.nebraska.gov/water-quality-and-quantity-task-force.

Public Comment

Mike Murphy, Middle Niobrara NRD, emphasized that water quality is a statewide issue and benefit, and recommended protecting areas with currently high-quality water in addition to addressing higher-risk areas.

Crystal Powers, UNL Extension, described existing and upcoming UNL Extension resources related to nitrates in groundwater, including programs for early childhood educators, farmers, and rural health clinics, and expressed interest in coordinating outreach with the Task Force.

Chittaranjan Ray, Nebraska Water Center, commented on Goal 10 and requested additional information regarding excess water system capacity in Omaha, the Tri-Cities, and western Nebraska.

Melissa Temple, Lower Elkhorn NRD Board member (speaking in her individual capacity), recommended increased well registration and education, addressing abandoned wells, incorporating public health considerations into agronomist education, considering limits on fall fertilizer application, evaluating lower nitrate thresholds, and expanding requirements related to well testing and landlord responsibilities. Temple recommended that UNMC's recommended limit of 3 ppm for nitrate should be considered instead of the EPA's 10 ppm limit.

Jonathan Rempel, individual, discussed logistical and economic challenges associated with in-season fertilizer application on his operation and urged the Task Force to consider cost impacts and data-driven justification before implementing new requirements. He also expressed concern regarding the economic impacts of expanded water metering.

Adjourn

The meeting adjourned at 3:41 p.m.

Attachment 5
Presentations and Handout Materials

Overview of State/NRD Initiatives on Water Quality/Quantity

June 2, 2025

Jesse Bradley

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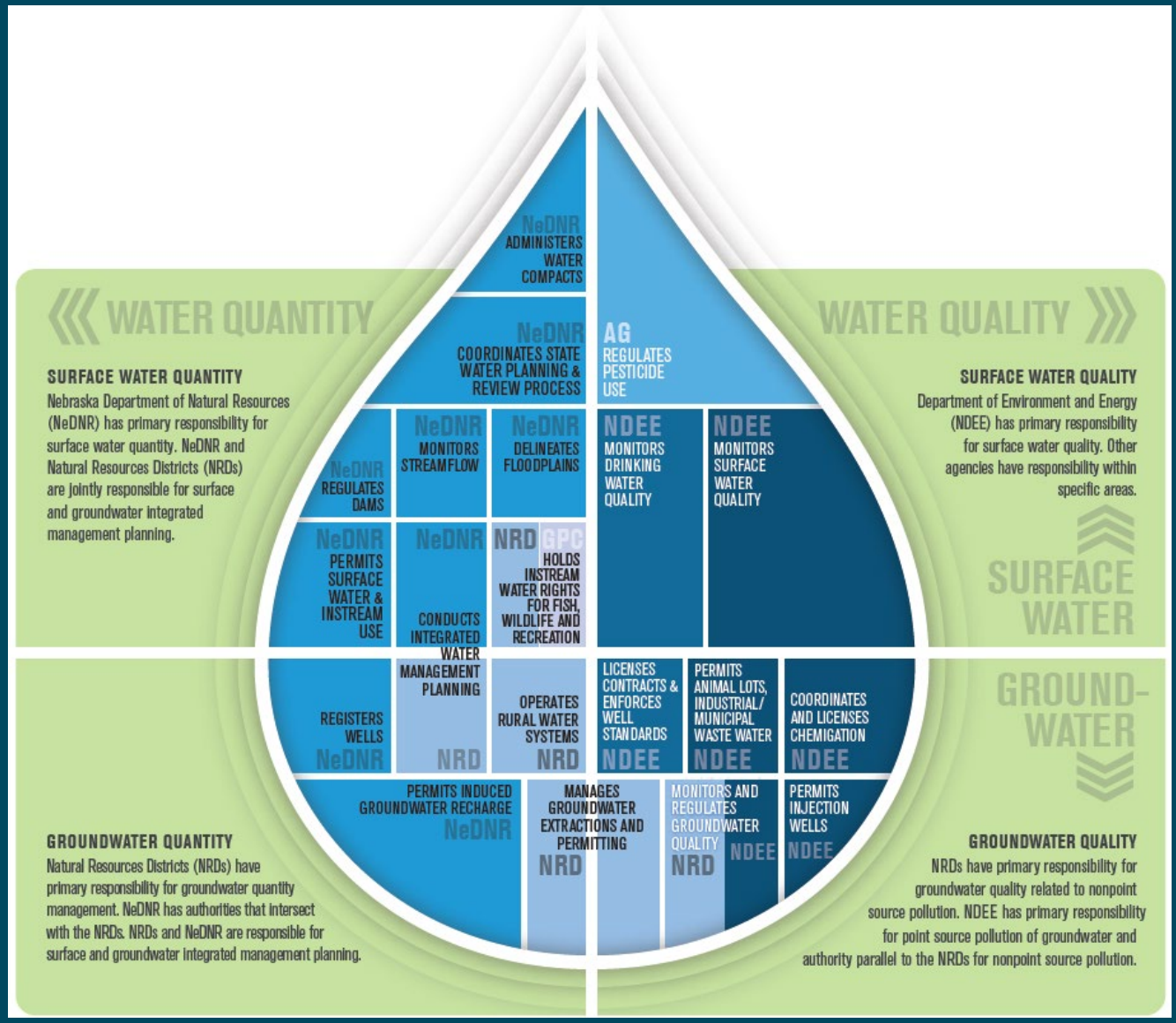
Water Management Agencies



State Programs

- Resilient Soils and Water Quality Act (Healthy Soils Task Force)
- Nitrogen Reduction Incentive Act
- Reverse Osmosis Program
- ONE RED
- Nitrate in Drinking Water Study
- Non-Point Source Water Quality
- SRF programs for drinking water and waste water
- Planning for well-head protection, source water protection, and integrated management
- Water Sustainability Fund

Resilient Soils and Water Quality Act

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Resilient Soil and Water Quality Act

- Develop partnerships with other conversation organizations
- Support development of producer led education opportunities
- Streamline access to conservation resources and program information


Nebraska
Corn


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N
EXTENSION


USDA
Natural
Resources
Conservation
Service


U.S.
FISH & WILDLIFE
SERVICE
DEPARTMENT OF THE INTERIOR


NEBRASKA
SOYBEAN BOARD


Nebraska Dry Bean
Commission


The Nature
Conservancy


RAINWATER
BASIN
JOINT VENTURE
ESTABLISHED 1992


CENTER for RURAL AFFAIRS


NW
NEBRASKA WHEAT


Nebraska's
Natural Resources
Districts
www.nrdnet.org
Protecting Lives • Protecting Property • Protecting the Future


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Midwest
Cover
Crops
Council


N
AGRONOMY AND HORTICULTURE
Institute of Agriculture and Natural Resources
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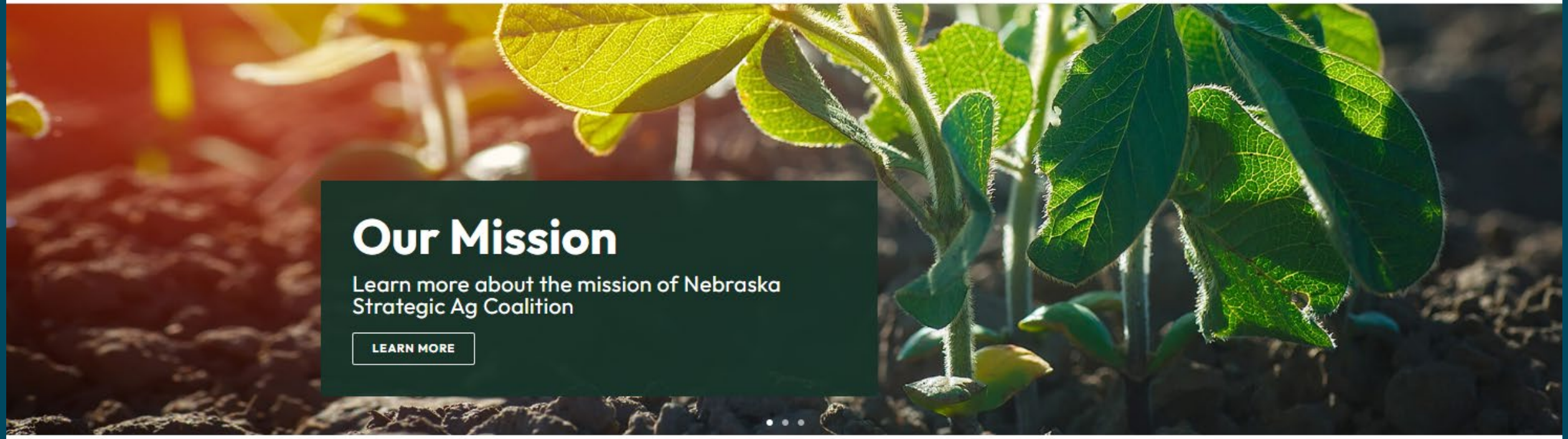
NEBRASKA STRATEGIC AG COALITION

402.471.3948 SUBMIT WEBSITE CONTENT

ABOUT THE COALITION TECHNICAL SUPPORT EDUCATIONAL RESOURCES COST-SHARE OPPORTUNITIES IN YOUR REGION EVENTS



RESOURCES

Find Opportunities In Your Region

While many programs are available throughout Nebraska, some are especially

Nitrogen Reduction Incentive Act (NiRIA) Program

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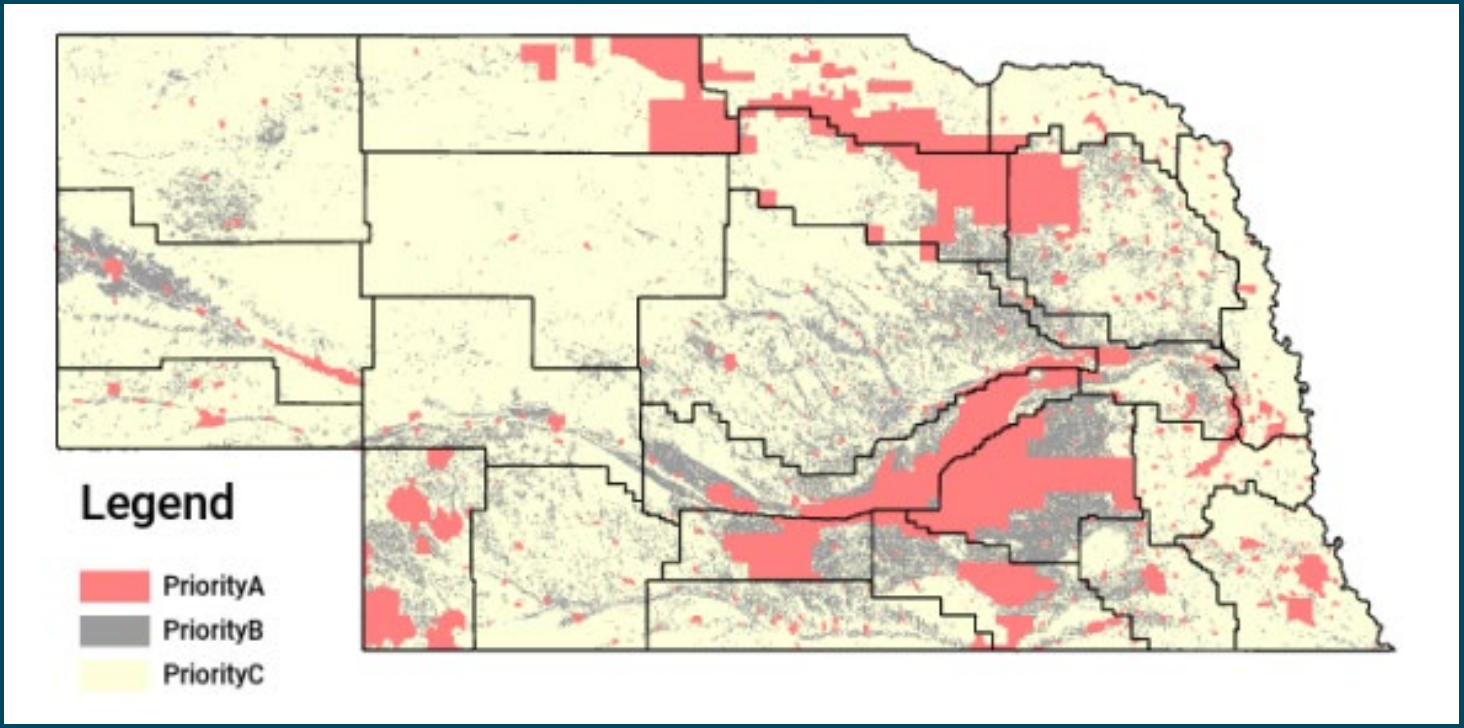
Nitrogen Reduction Incentive Act



Priority Areas and Incentive Payments

The Department and NRDs have determined the program will operate under three priority areas (Figure 1) and **will be offered to corn, sugar beet, and potato producers**. **Priority A Area** will be wellhead protection areas and phase II, or higher phase areas established by an NRD, for purposes of water quality management. **Priority B Area** will be areas throughout the state that have been certified to irrigate crops. **Priority C Areas** will be all other areas of the state, including dryland. **Contact your local NRD to know which Priority Area you are in.** *Figure 1 data is supplied by NeDNR permitted irrigated lands, wellhead protection areas, and NRD phase areas as of June 28, 2024.*

Nitrogen Reduction Incentive Act (NiRIA) Program Application 2024

Name of Producer: _____

Primary Contact: _____

Primary Contact Phone Number: _____

Primary Contact Email (if available): _____

Name of Natural Resources District (NRD): _____

Are you already enrolled in a federal nutrient management plan? ☐No ☐Yes
If yes, list what program(s)_____

Type of Crop: ☐Corn ☐Sugar Beet ☐Potato
Legal Description (Submit one application per field): _____

Total Acres to Be Enrolled in this field (Limit of 280 acres): _____ Average Yield: _____

Crop Year: _____

Will you apply manure or lagoon water to this field? ☐Yes ☐No
If yes, attach documentation with the known amount of nitrogen in manure or lagoon water.

Do you apply nitrogen in the fall? ☐Yes ☐No

Identify the practice(s)/ product(s) you plan to implement to achieve the 40lbs or 15% reduction of commercial fertilizer by checking a box below. *Note that the below options do not represent a ranked list and practices/products are subject to individual NRD approval.

☐ Reduction in Nitrogen Application
☐ Implementation of Biological Nutrition (Example: *Proven40*)
☐ Implementation of a Nitrogen Use Efficiency Technology (Example: *N-Time*)
☐ Implementation of a Nitrogen Stabilizer (Example: *Agrotain*)
☐Other Please Describe_____

Select type of documentation that will be used to determine baseline and to evaluate nitrogen reduction:

☐ NRD or producer crop reports (Priority A Areas)

☐ Submit all data required on local NRD phase reports for the prior 3 growing seasons (Priority B or C Areas)

☐ Complete soil sampling, as established by the NRD, prior to the cropping season (Priority B or C Areas)

*Please note that individual NRDs may require additional information.

Applicant Signature (Receiving 1099): _____ **Date:** _____

NRD Signature: _____ **Date:** _____

https://dnr.nebraska.gov/lb-1368-nitrogen-reduction-incentive-program 1

Reverse Osmosis Rebate Program

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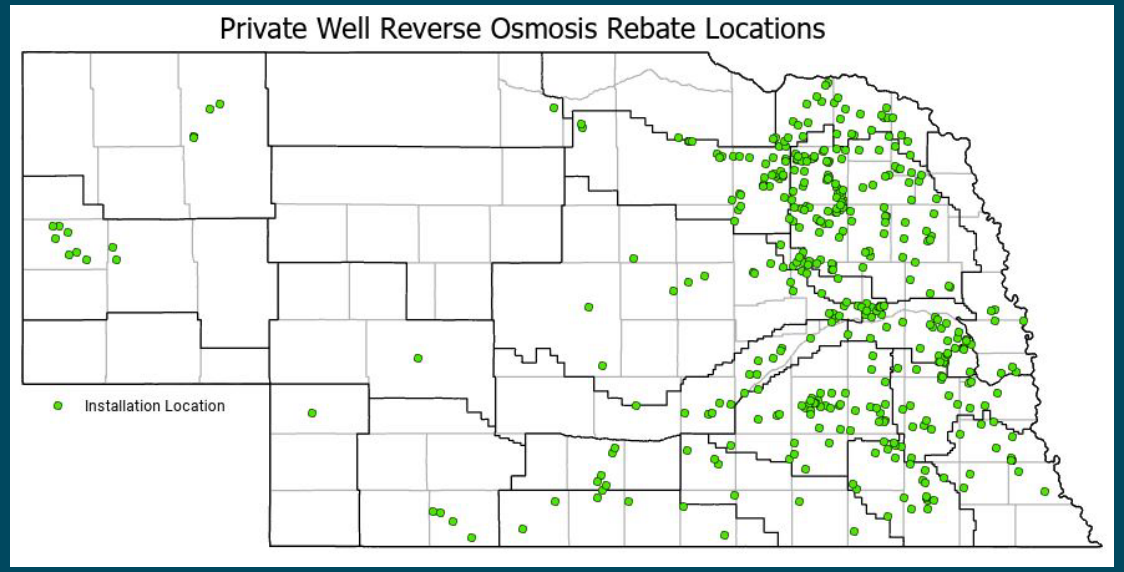
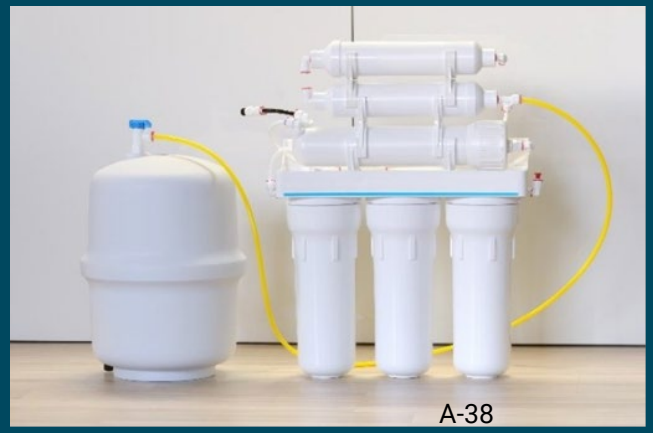
Private Well Reverse Osmosis Program

- Private well reverse osmosis system rebates were available to property owners of private wells with drinking water levels above 10 parts per million of nitrate
- Eligible for up to $4,000 in rebates per small treatment installation
- Opened January 2023, and closed May 2024
- NDEE received 370 applications requesting a funding total of $1.3M





Source: https://www.epa.gov/watersense/point-use-reverse-osmosis-systems

ONE RED

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ONE RED

- In July 2024, EPA announced an award of $307 million to NDEE
- $160M to support data collection, regenerative, and precision ag. practices

ONE RED — Opportunity for Nebraska: Reducing Emissions & Decarbonization

ONE RED Update—November 12, 2024. Nebraska has been awarded $307 million to implement the measures listed below over a five-year period. Participation in all incentive programs will be strictly voluntary and will not rely on new rulemaking or requirements. Program designs and timeframes for implementation will be worked out over the coming months.

Measure*	Funding	Metric Tons GHG Reduction	
		By 2030	By 2050
Non-Residential Energy Efficiency Program: Projects for industrial, commercial, agricultural, public, and nonprofit buildings and facilities.	$30.3 MM	536,393	2,933,544
Residential Pre-Weatherization Program: Funding to address critical home repairs for low-income residents to allow eligibility for the Weatherization Assistance Program.	$4.1 MM	13,103	72,405
ONE RED Irrigation Engine Program: Rebates to farmers to replace diesel irrigation pump engines with electric motors or pumps connected to the electric grid.	$6.1 MM	14,291	124,901
Rural Community Solar Program: Solar arrays to provide partial power to water and waste-water facilities, reducing energy cost.	$16.4 MM	9,183	25,148
Non-Residential Solar Program: Funds for solar projects in locations that do not displace other productive uses: industrial, commercial, and municipal rooftops; brownfield community solar; solar canopies over parking lots and cattle feedlots.	$28.1 MM	12,180	29,481
Ag Registry and Grants Program: Three interdependent strategies: 1) Develop a Carbon Intensity (CI) Score Registry with incentives for participation; 2) Incentives for adoption of Regenerative Agriculture Practices to improve soil health and reduce N fertilizer use; 3) Incentives for Precision Agriculture equipment for more efficient production.	$160.4 MM	25,128,828	155,051,209
Anaerobic Digester/Biogas Hub Program: Establish a regional biogas cleaning facility near an existing natural gas pipeline, with biogas supplied by digesters at nearby animal feeding operations to benefit multiple producers.	$57.2 MM	261,907	2,007,957
Biochar Incentive Program: Funding for biochar processing facilities to convert woody organic waste into biochar to store carbon in soil.	$4.4 MM	12,050	65,608
TOTALS	**$307 MM**	**25,987,935**	**160,310,253**

* The order of measures in this list does not indicate any NDEE preference or priority.

SECTORS AFFECTED:

- ☒ Industry
- ☒ Electricity Generation
- ☒ Commercial and Residential Buildings
- ☒ Agriculture/Natural and Working Lands
- ☒ Waste and Materials Management
- ☐ Transportation

More info:

Nitrate in Drinking Water Study

Nitrate Drinking Water Study

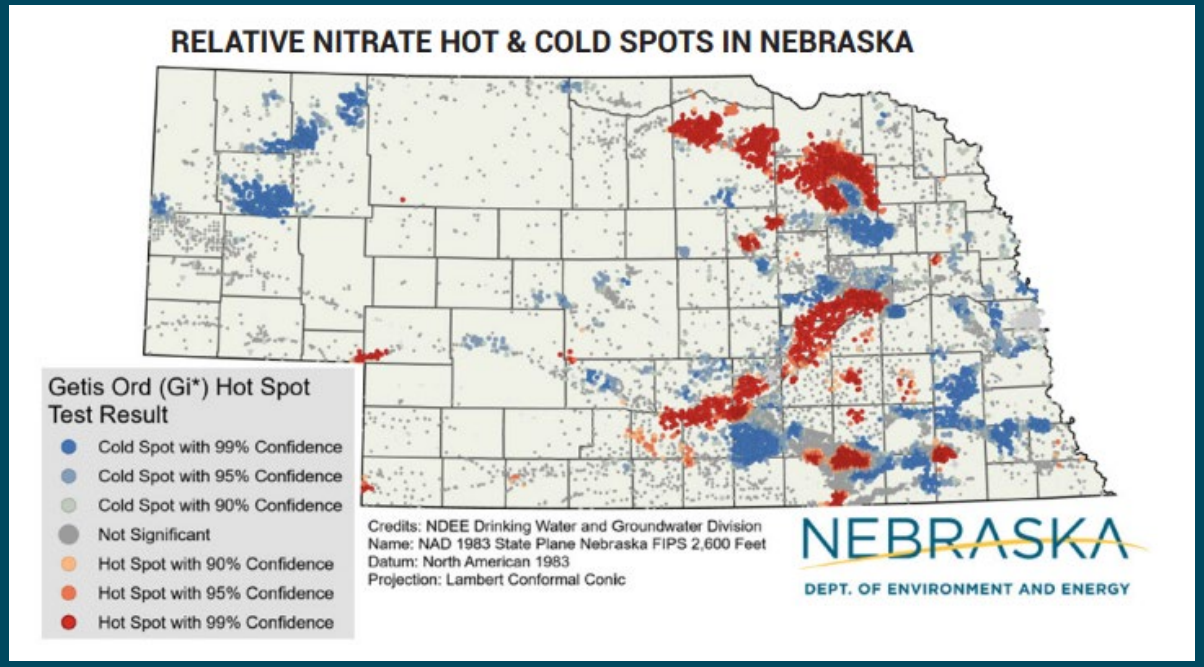
- Study analyzed available nitrate samples from wells across Nebraska to identify areas of concern, collected additional data on nitrate in private domestic wells, and identified trends in nitrate concentrations in community water systems.

RESULTS:

Private Domestic Wells: Approximately 15% of the nearly 3,500 private domestic wells tested had nitrate levels exceeding the federal Safe Drinking Water Act (SDWA) limit of 10 milligrams per liter (mg/L).

Public Water Systems: About 1/3 of the 444 public water systems analyzed showed rising nitrate levels, indicating a growing concern for communities relying on these sources.

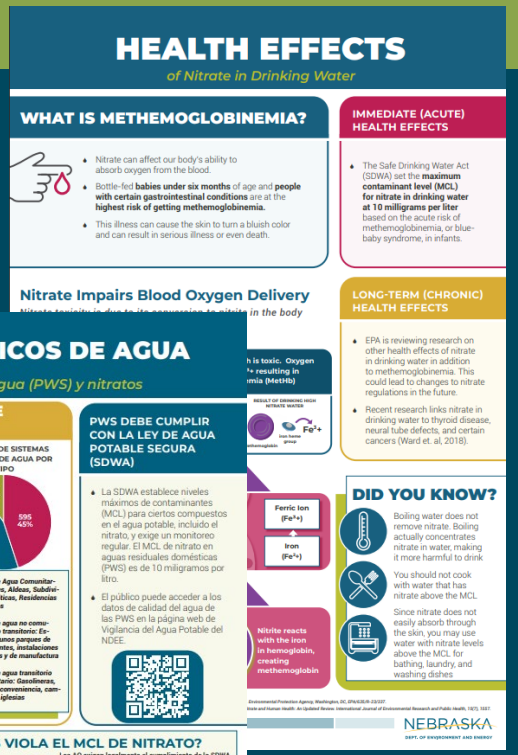
Geographic Hotspots: High-risk areas for nitrate contamination were identified, including the Platte River Valley, Elkhorn River Valley, Republican River watershed, and the Little and Big Blue River basins.

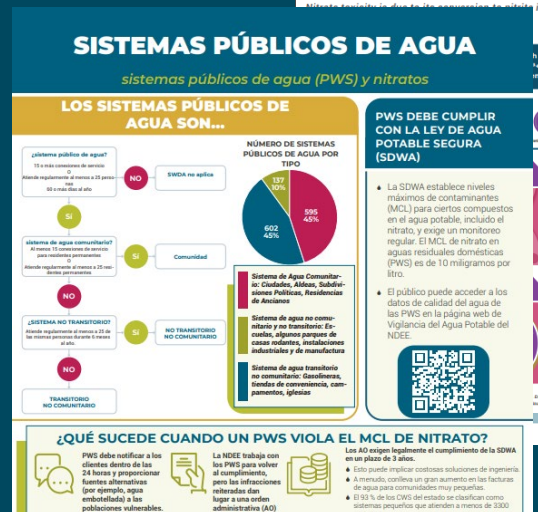


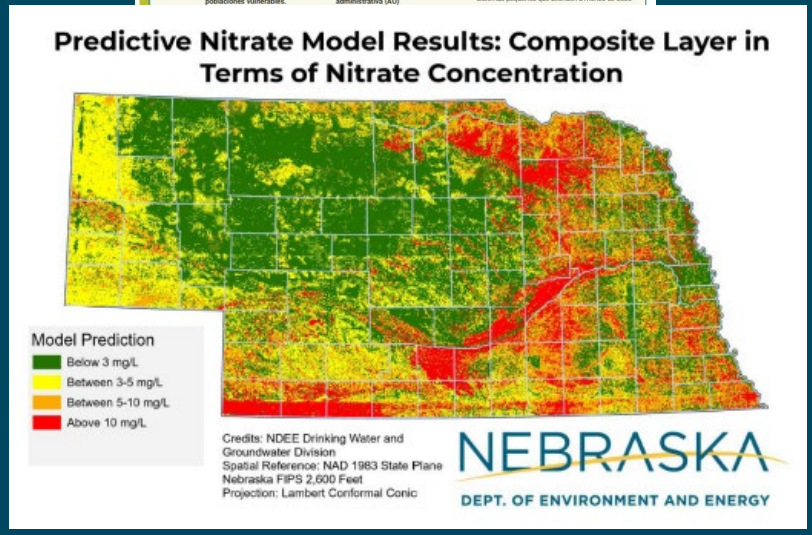
Tools and Resources from the study

- An interactive, web-based GIS tool for NDEE and resource partners to assess nitrate risk
- A nitrate outreach toolbox and guidance documents
- A public water system assistance ranking system to target outreach and funding
- Nitrate summary reports* available to community water systems to show trends in their source water

*(English and Spanish)



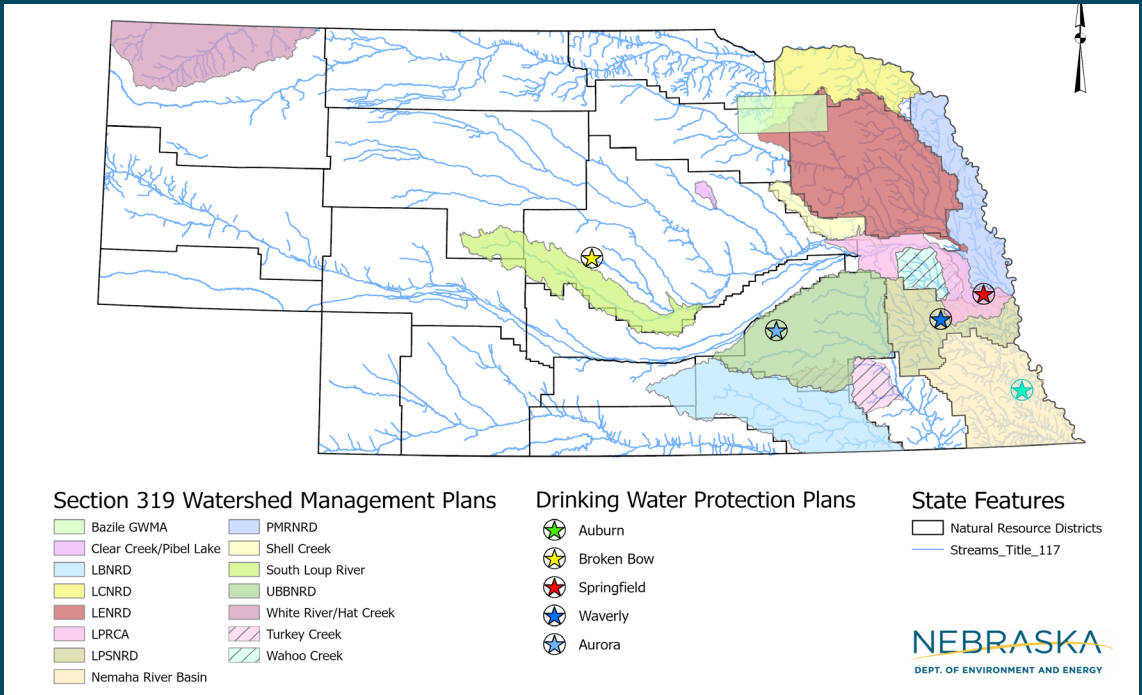


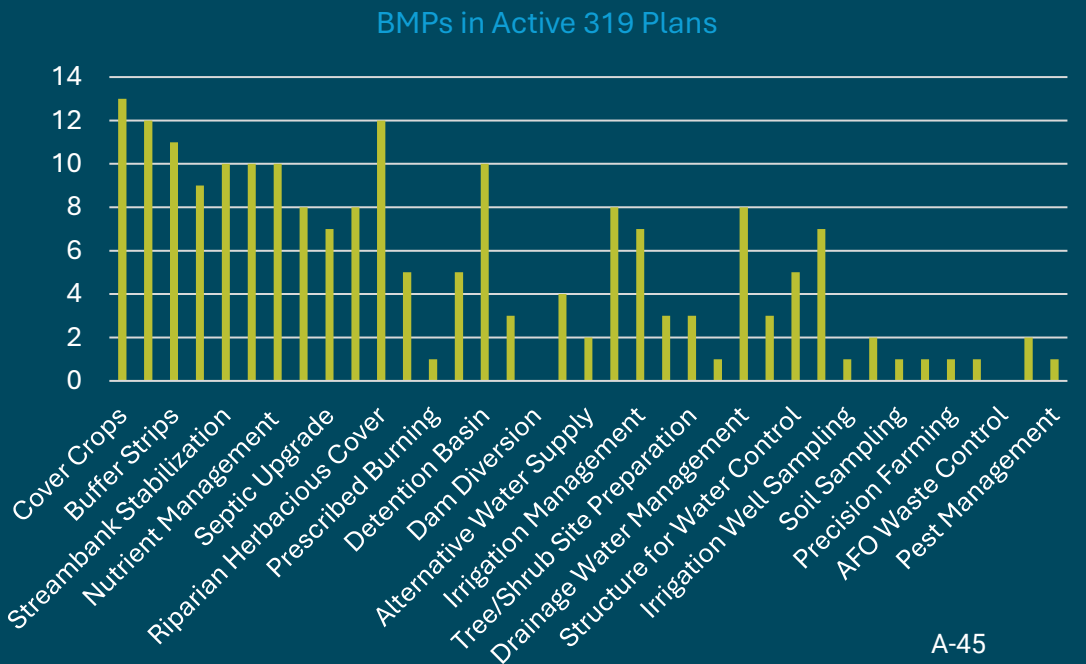


Non-Point Source Water Quality

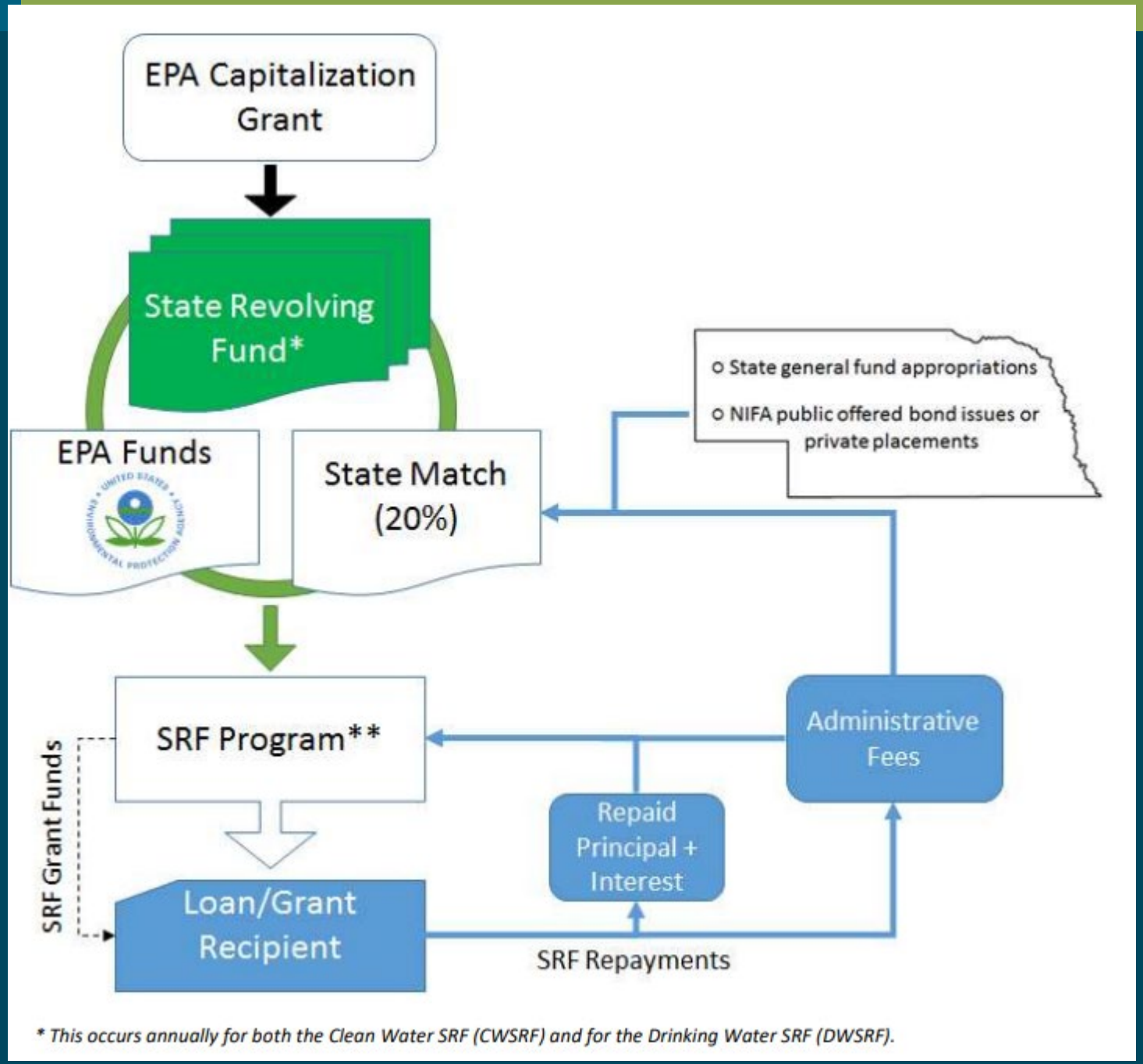
Reducing nonpoint source pollution to state waters

- Two funding options:
  - Competitive projects (~$300,000 for 2–3-years)
  - Small grants (≤ $15,000 for around 1 year)
- Nebraska receives an average grant award of ~$2.5 million from year to year.





State Revolving Funds (SRF) programs for drinking water and waste water


EPA Capitalization Grant
State Revolving Fund*
EPA Funds
State Match (20%)
State general fund appropriations
NIFA public offered bond issues or private placements
SRF Program**
Administrative Fees
Repaid Principal + Interest
SRF Grant Funds
Loan/Grant Recipient
SRF Repayments
* This occurs annually for both the Clean Water SRF (CWSRF) and for the Drinking Water SRF (DWSRF).

Clean Water State Revolving Fund (CWSRF)

- The CWSRF was created to provide below market financing for construction of publicly owned (wastewater) treatment works (POTWs) and nonpoint source control systems
  - Construction of wastewater treatment facilities and sanitary sewer collection systems to alleviate public health and environmental problems
- Just over $21.8M of program funding in 2026 fiscal year
- Projects include:
  - Wastewater treatment work projects
  - Nonpoint Source projects
  - Stormwater projects
  - Emerging Contaminants: testing and treating
  - Water conservation, efficiency, and reuse projects
  - Security measures at publicly owned treatment works
  - Technical assistance

Drinking Water State Revolving Fund (DWSRF)

- The DWSRF was created to provide low-cost financing for construction of publicly or privately owned public water systems (PWS)
  - Construction of water works, and for land acquisition from willing sellers for source water protection. Funds can be used to plan, design and construct drinking water facilities
- Just over $72.1M of program funding in 2026 fiscal year
- Projects include:
  - Treatment installation or upgrading for Public Water Systems
  - Transmission and distribution systems
  - Source water rehabilitation
  - Water Storage Options
  - Consolidation – interconnecting two or more water systems
  - Creation of new systems for homes with contaminated individual wells.
  - Emerging Contaminants: testing and treating
  - Lead Service Line: testing, education, replacement

Water Planning

Well-head protection, source water protection, and integrated management

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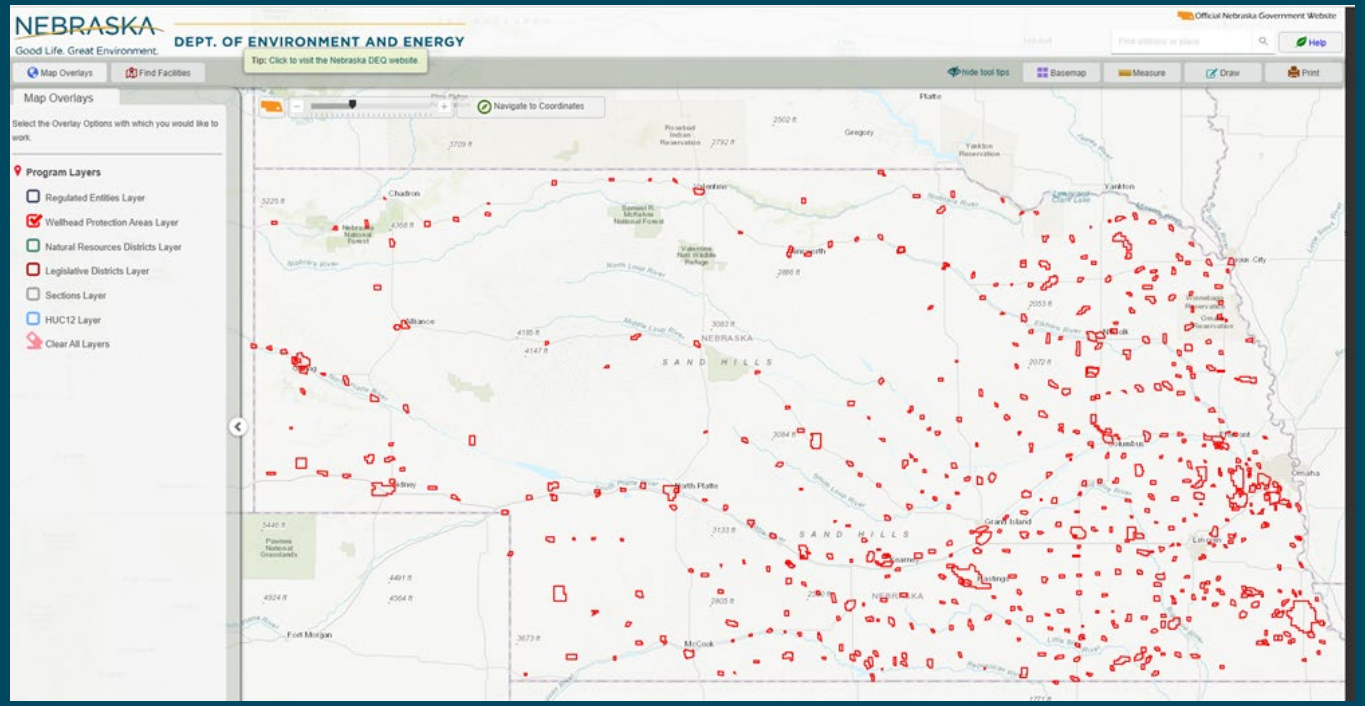
Well-head Protection (WHP)

- Voluntary program, but every community water system with its own active source has a plan
- 516 WPH areas in Nebraska, 116 are approved



EFFECTIVE DATE
APRIL 4, 2010

NEBRASKA DEPARTMENT OF
HEALTH AND HUMAN SERVICES

179 NAC 7

CATEGORY	DISTANCE Feet
Water Well	1,000
Sewage Lagoon	1,000
Land application of municipal/industrial waste material	1,000
Feedlot or Feedlot Runoff	1,000
Underground disposal system (septic system, cesspool, etc.)	500
Corral	500
Pit Toilet/Vault Toilet	500
Wastewater Holding Tanks	500
Sanitary Landfill/Dump	500
Chemical or Petroleum Product Storage	500
Sewage Treatment Plant	500
Sewage Wet Well	500
Sanitary Sewer Connection	100
Sanitary Sewer Manhole	100
Sanitary Sewer Line	50

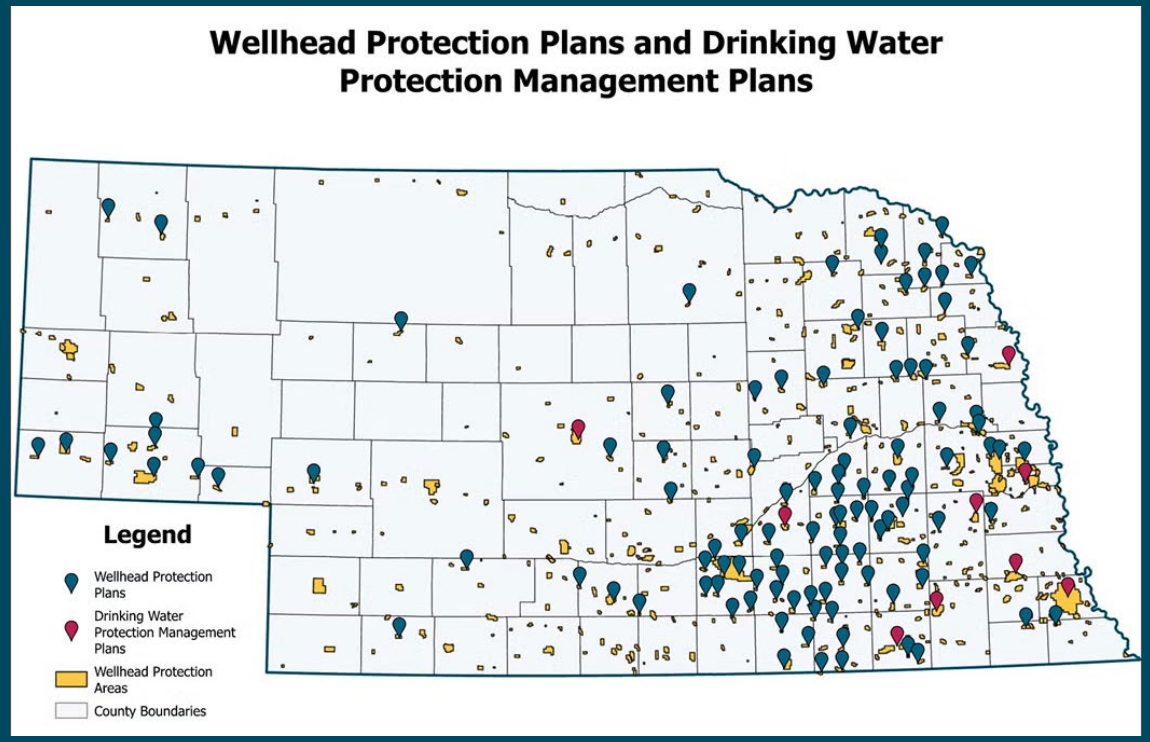
NOTE: If the distance requirements in 179 NAC 13 Attachment 2 are not met, the well is subject to testing to determine if it is ground water under the direct influence of surface water. If a well meets that definition, it is treated as a surface water source subject to all the requirements of the rules regarding surface water.

A-51

Budget in 2024 ~$50K

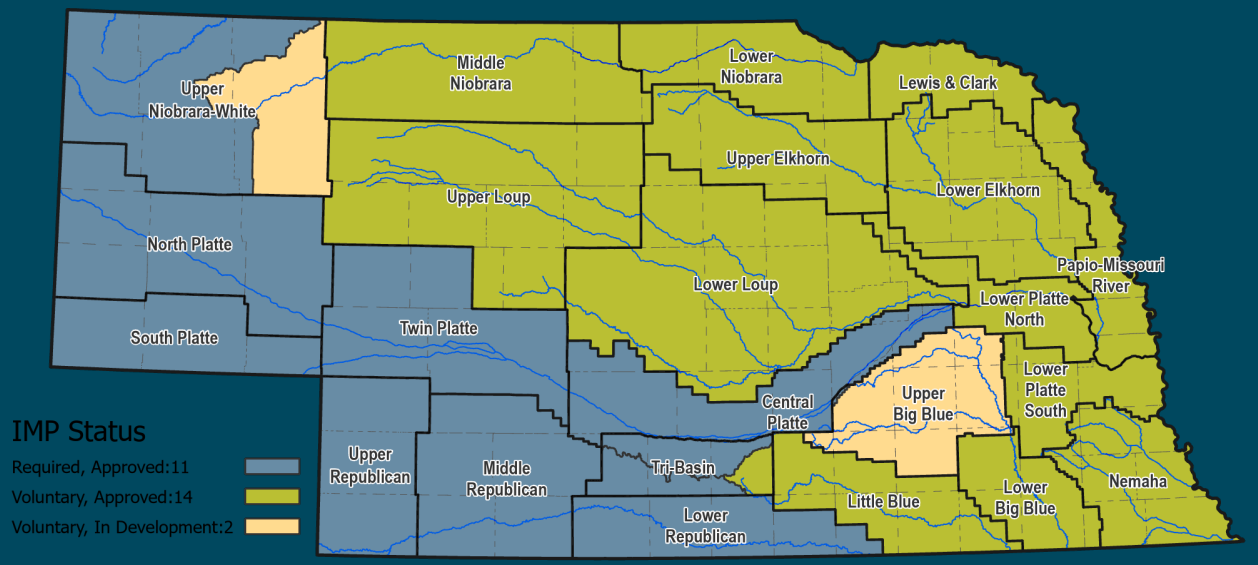
Source Water Protection (SWP)

- Protecting water used as public or private drinking water for human health
- $150,000 per year may be available to finance projects that protect public drinking water sources
- Projects include:
  - Public Education on Source Water Protection, workshops on Best Management Practice (BMP)
  - Implementation and evaluation of agricultural and urban BMPs
  - Water Conservation Programs
  - Contaminant source identification – research / investigation
  - Contaminant pathway removal (such as the proper decommissioning of unused wells, or structures to divert contaminated runoff from a source)
  - Restoration and/or conservation of the source water protection area
  - Water quality monitoring at critical points in protection areas

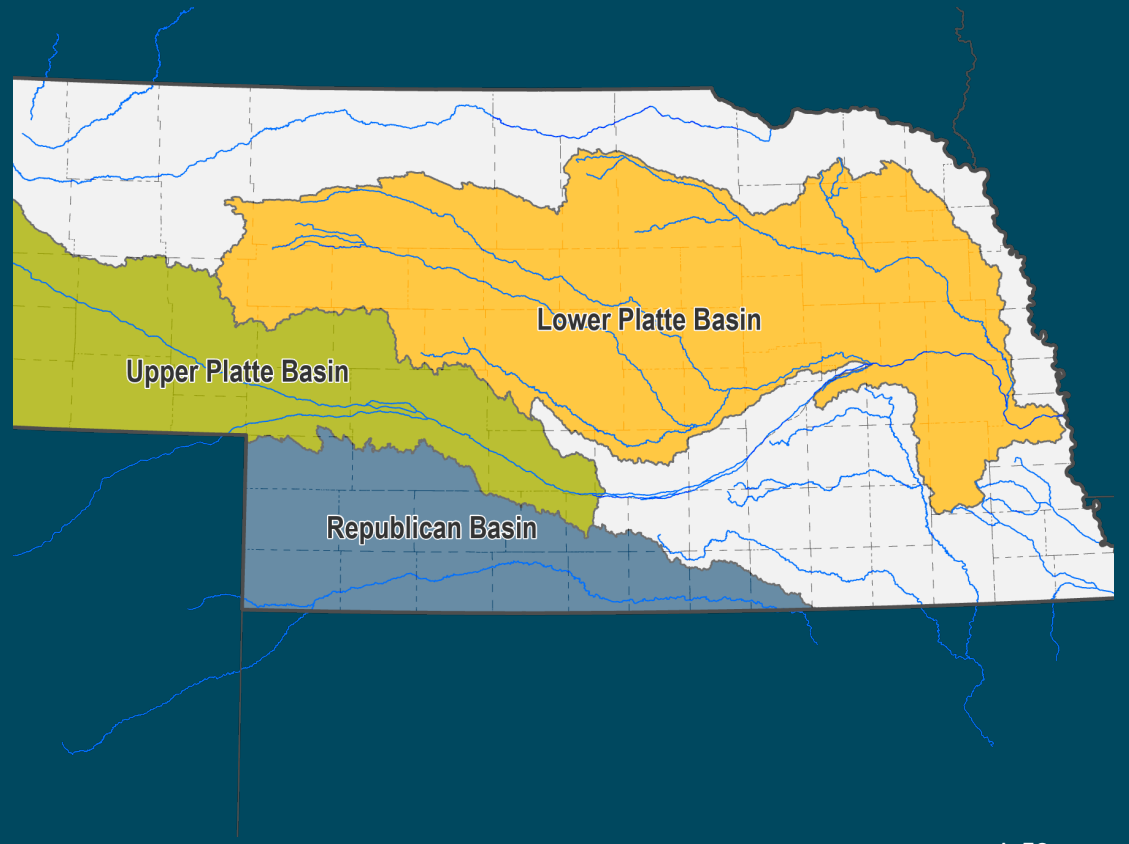


Integrated Water Planning Areas

- Integrated Management Plan Areas



- Basin-wide Plan Areas



Water Resources Cash Fund

- The fund is to be used in any area that has adopted an integrated management plan
  - To aid management actions taken to reduce consumptive uses of water;
  - To enhance stream flows or ground water recharge;

Groundwater Recharge and Wetland Habitat Project (2017-2020)

Parties: Tri-Basin NRD, CNPPID, USFWS, NeDNR

The **Groundwater Recharge and Habitat Project** increased groundwater recharge and water quality within the **Tri-Basin NRD** and enhanced wetland habitat in five **Waterfowl Production Areas (WPAs)**. CNPPID provided excess flows through their canal system to *improve wetland function and recharge the excess flows* within Tri-Basin NRD's boundaries. Tri-Basin NRD installed dedicated observation wells in the WPAs to ensure the project benefits were achieved.

Platte Basin Habitat Enhancement Project (PBHEP) (2009-2019)

Parties: North Platte NRD, South Platte NRD, Twin Platte NRD, Central Platte NRD, and Tri-Basin NRD (Upper Platte NRDs), Nebraska Game and Parks Commission (NGPC), NeDNR

PBHEP was a shared venture to fund projects that help Nebraska meet its PRRIP compact obligations. Funding was primarily provided by the 5 NRDs ($2 million) and NeDNR ($2 million) with an average annual $1 million grant from the Nebraska Environmental Trust (NET).

The Phelps County Canal, part of the Central Nebraska Public Power and Irrigation District in south-central Nebraska. Photo courtesy of Nebraskaland Magazine/Nebraska Game and Parks Commission.

Groundwater Recharge from Excess Flows (2013-Present)

Excess surface flow projects can provide groundwater recharge year-round via a canal system or recharge pit. Excess surface flows are those beyond what is required to support existing uses in a basin. Diverted to a canal or pit, the water seeps through the sides and bottom, moving into the groundwater zone.

Meeker-Driftwood Canal Automation Project (2020-Present)

Parties: Frenchman-Cambridge Irrigation District (FCID)

FCID began an **automation and remote signaling project on the Meeker-Driftwood Canal** in 2020. The project was given $2 million in funding from the Colorado Settlement portion of the WRCF.

Upgraded flow measurement devices and newly installed control gates connect to a Supervisory Control and Data Acquisition (SCADA) radio telemetry network that can be remotely accessed. Results include:

- Decreases unintended operation spills,
- Increases water storage in the Swanson Reservoir, and
- Increases groundwater recharge.

Water Sustainability Fund

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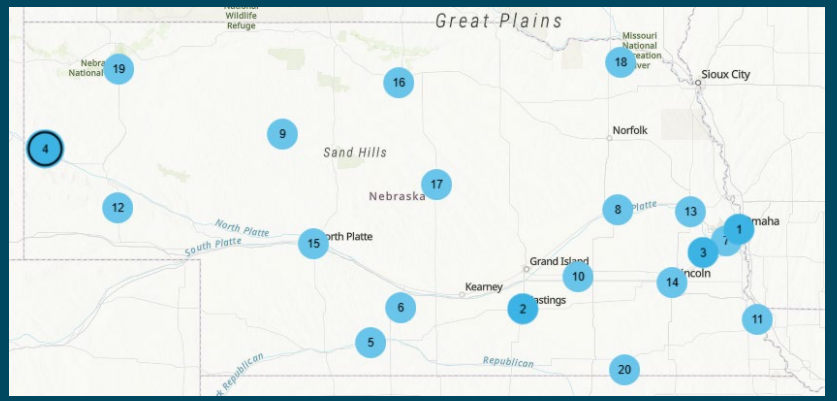
Goals of the Water Sustainability Fund

- Provide financial assistance to programs, projects, or activities that increase aquifer recharge, reduce aquifer depletion, and increase streamflow
- Remediate or mitigate threats to drinking water
- Promote the goals & objectives of approved integrated or ground water management plans
- Contribute to multiple water supply management goals including flood control, reducing threats to property damage, agricultural uses, municipal and industrial uses, recreational benefits, wildlife habitat, conservation, and preservation of water resources
- Assist municipalities with the cost of constructing, upgrading, developing, and replacing sewer infrastructure facilities as part of a combined sewer overflow project
- Provide increased water productivity and enhance water quality
- Comply with interstate compacts, decrees, other state contracts and agreements and federal law



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THANK YOU

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Governor's Water Quality and Quantity Task Force

Subcommittees

A. Financing and Incentives Committee

- Examine ROI of sustainable practices like precision ag, cover crops, etc.
- Explore fee/tax models to address nitrate legacy (e.g., Title 200 gas tax analogy)
- Reframe incentives to support early adopters and expand education

B. Nitrate Legacy and Drinking Water Access Committee

- Support water treatment costs for communities
- Review community management within source water and wellhead protection areas
- Discuss rural water system development as a long-term potable water strategy
- Discuss monitoring and best practices for self-served domestic water supplies

C. Water Conservation and Quantity Committee

- Irrigation well water metering requirements
- Review allocation systems to determine most effective strategies
- Review water availability for industries and economic growth

D. Methods and Resources Committee

- Identify existing effective practices to reduce nitrogen and water use
- Determine regionally appropriate metrics for incentives or restrictions
- Establish benchmarks for measuring the success of the task force initiatives
- Discuss potential information clearinghouse (e.g., pivot company tech)
- Consider tools like "Producer Connect" to improve adoption
- Discuss generational change gap and how to address it

Ag Registry and Grants Program:

Task Force Oversight

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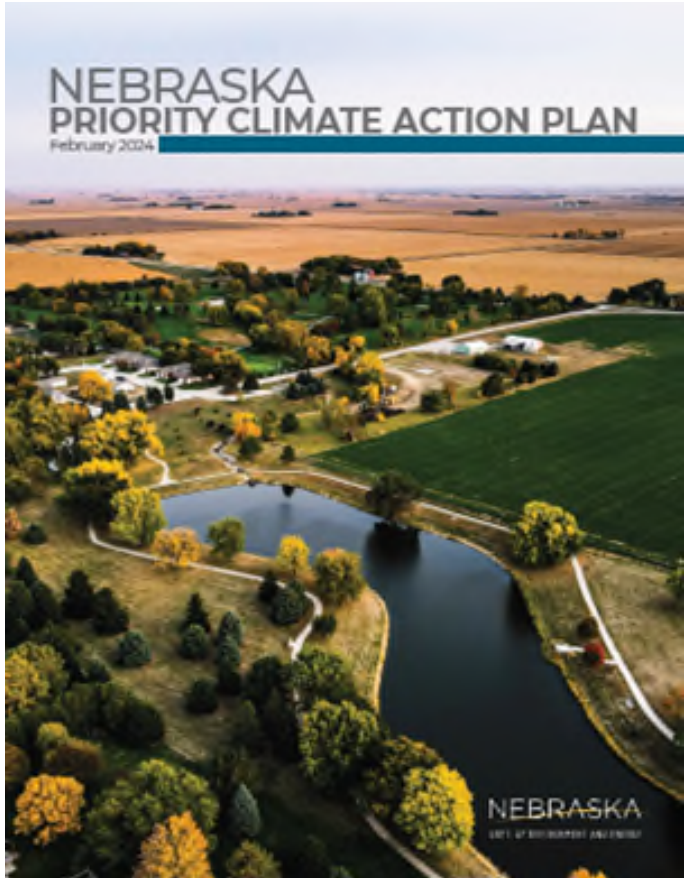
Agenda

- Background on ONE RED
- Ag Registry and Grants Program Overview
  - Carbon Intensity Registry
  - Regenerative Agriculture Grants
  - Precision Agriculture Grants
- Task Force Role, Expectations, and Timeframe

Climate Pollution Reduction Grant Program (CPRG)



A CPRG planning grant funded the development of Nebraska's Priority Climate Action Plan (PCAP) in 2023.

The plan identified 12 ***voluntary, incentive-based measures*** to reduce greenhouse gas (GHG) emissions throughout the state.

In October of 2024, the Department was awarded a $307 million implementation grant to fund eight programs drawn from Nebraska's PCAP.

ONE RED Program Categories

DWEE

People, Soil, and Nitrogen Work

- Nebraska Strategic Ag Coalition (NSAC)
- Nebraska Conservation Mentorship Network
- Nitrogen Reduction Incentive Act (NiRIA) Program
- Nebraska Soil Health Coalition (NSHC)
- Numerous field and networking events for Nebraska producers

Ag Registry and Grants Program

Aims to support Nebraska's Ag producers in adopting regenerative ag practices and precision ag technologies

Goals:

- Enhance farm sustainability by building soil health and reducing input costs
- Reduce nitrate
- Reduce emissions

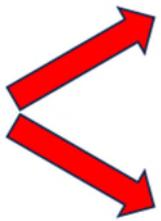
Three-Pronged Approach

Carbon Intensity Registry	$60M
Regenerative Agriculture	$17M
Precision Agriculture	$70M

CI as a Proxy for Economic and Environmental Outcomes

Lower CI Scores driven by:

- **Yield**
- **Efficient Nitrogen Utilization**
  - Lower Use
  - More efficient use
- **Soil Carbon Sequestration**
  - Reduced Tillage
  - Cover Crop Use
  - Manure or Compost Use



Potential <u>Economic Outcomes</u>

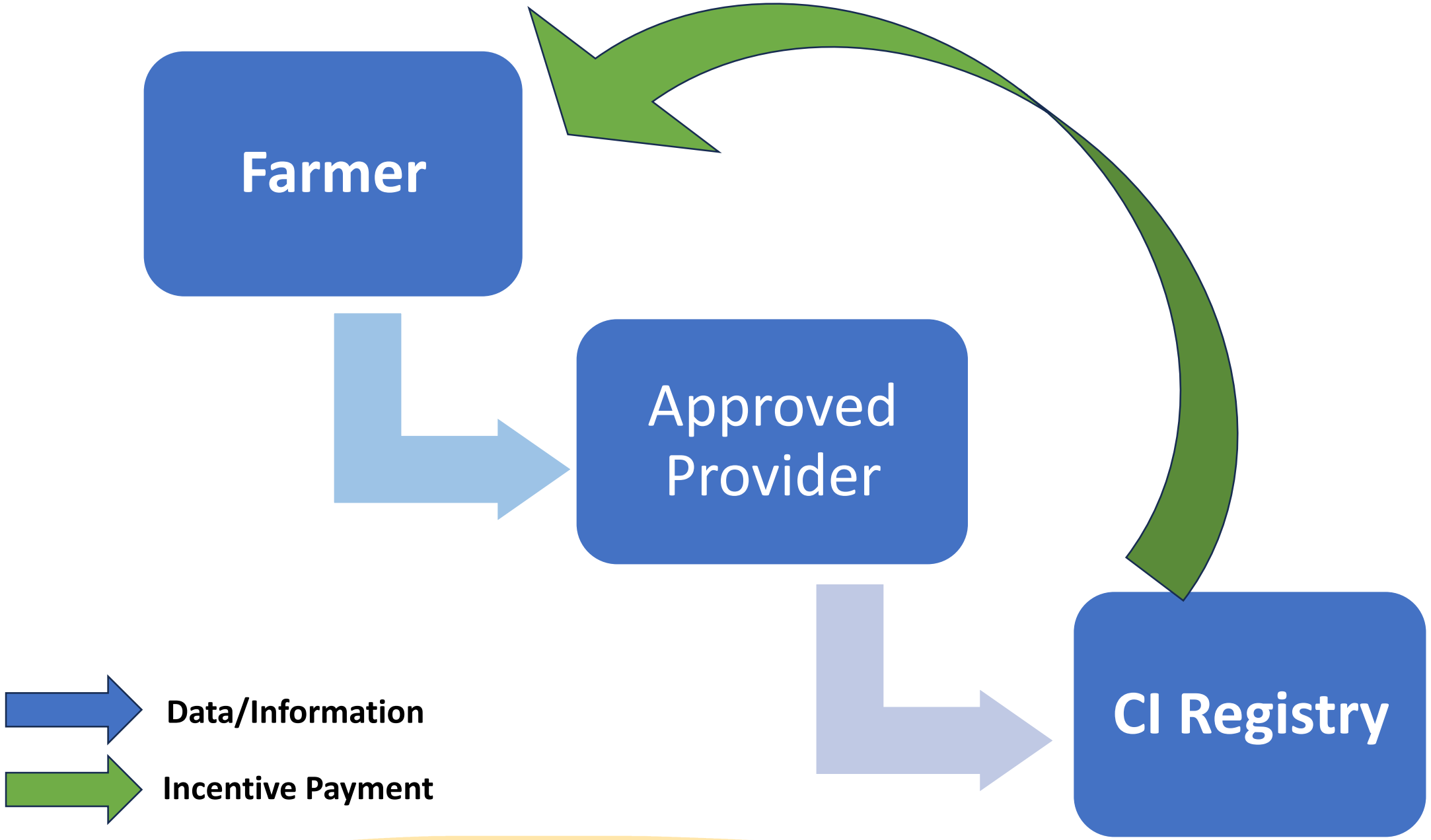
- Reduced input costs
- Soil and crop resilience – economic stability
- Access to additional markets and premiums
- Data as a second cash crop

Potential <u>Environmental Outcomes</u>

- Reduced nitrates in groundwater
- Reduced soil & nutrient loss to erosion
- More efficient water use
- Improved crop resiliency to biotic/abiotic stress

Carbon Intensity (CI) Registry ($60M)

- Carbon intensity is a measure of the amount of GHG emissions resulting from a process.
- The CI score for a crop is calculated by an Ag consultant based on inputs and practices
- The Registry will initially pay farmers to submit their CI score
- Ethanol producers will be seeking low-CI feedstocks to take advantage of the West Coast market and any federal tax credits
- The CI Score registry will provide growers with an established performance metric to track the impact of sustainable farming practices and gain premium pricing for their crops


Farmer
Approved Provider
CI Registry
Data/Information
Incentive Payment

Input Variables for CI Calculation

- Field size
- Crop yield
- Fuel and energy usage
- Fertilizer/chemical use
- Management practices (e.g., tillage, manure, cover crops)
- Soil organic carbon

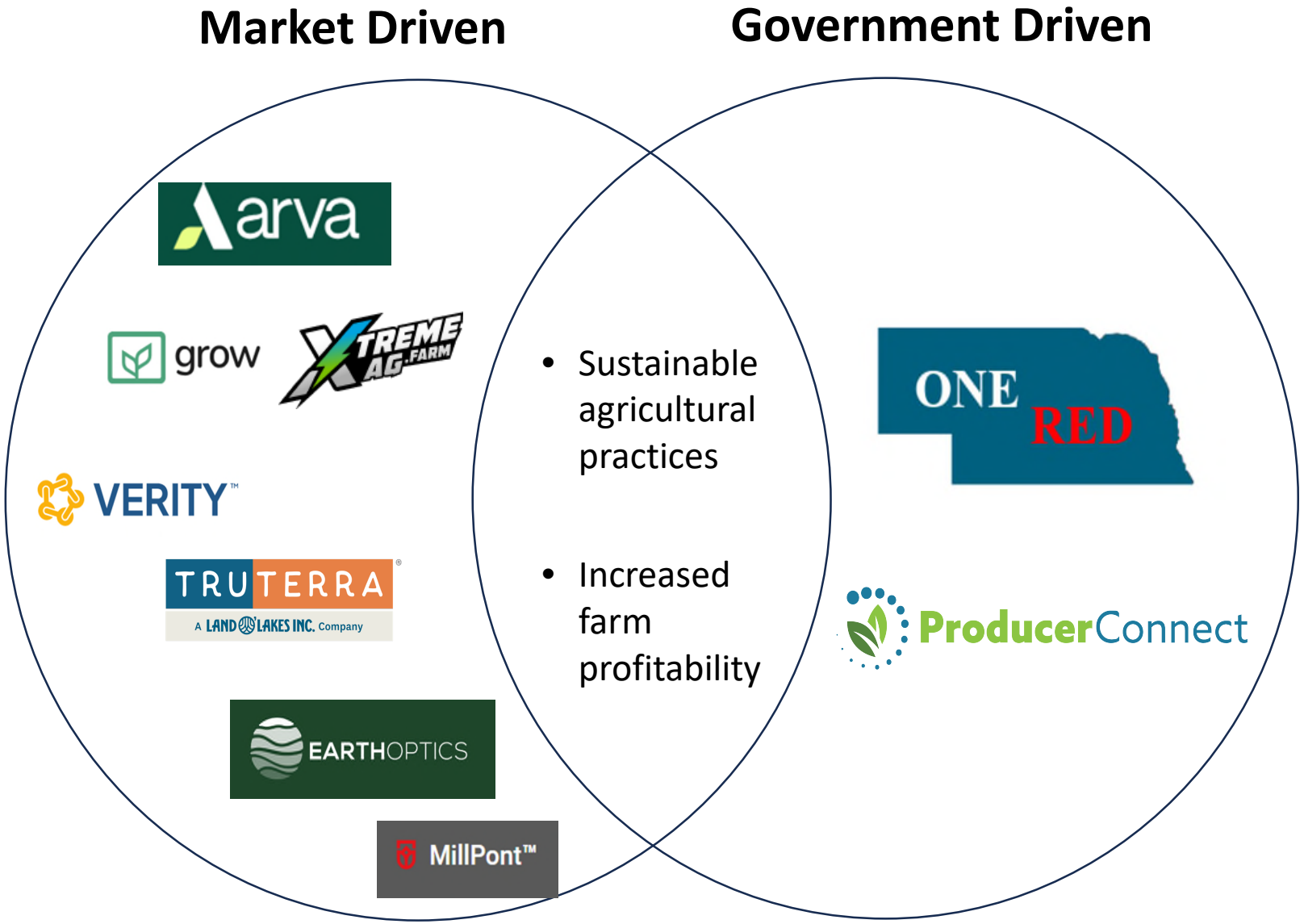
Registry

- **Independent Design & Operation**:
  The Registry will be designed and operated by an independent software vendor, selected in collaboration with DWEE and our partners.
- **Security & Isolation**:
  The system will be both physically and digitally isolated to ensure a high level of security and data protection.
- **Approved Third-Party Providers**:
  Producers will have the option to work with approved third-party providers to gather the environmental data required to calculate their carbon intensity (CI) scores.
- **Data Privacy & Security**:
  All approved providers will be held to strict standards for maintaining data privacy and security before and during the submission of data to the Registry.

Data Collection

Outputs/ Performance Measures	Outcomes / Projected Environmental or Programmatic Improvement
• # of farms logging original CI score • # of farms logging subsequent scores • # of acres represented in Registry per year • # of bushels recorded in Registry per year • Change in CI Scores within and across operations • # of operations applying/receiving grants • Total amount of grants/year • Geographic diversity of CI scores and grants • Participation rate of small/medium farms	Reduced CI of corn and soybeans Reduction in metric tons CO2e Higher profits for small/medium farms

Invested agricultural GHG reductions



Grant Programs

Regenerative Ag Grant Program

Precision Ag Grant Program

Regenerative Agriculture Grant Program ($17M)

Full or Cost-share funds to implement Regen Practices

Potential Eligible Equipment/Programs:

Equipment

- Roller-Crimper Systems
- No-till Drill and Strip-till Equipment
- Cover Crop Seeders and Interseeders

Programs

- NiRia
- Community-Based Programs to encourage adoption

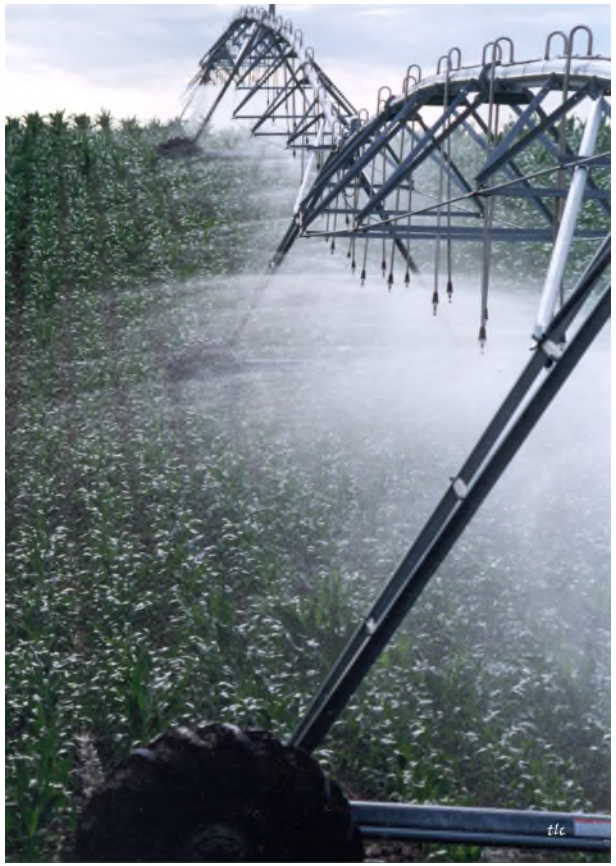
Nutrient Management Plans

Precision Agriculture Grant Program ($70 M)

Full or Cost-share funds for Precision Ag Practices

Potential Eligible Equipment:

- Subscription Costs for Crop Management Systems
- In-ground sensors
- Remote Sensing Services
- Variable Rate Technology
- Water Management and Irrigation Systems
- Fertigation Systems
- Other Precision Agriculture Equipment



How the Grant Programs Will Work

DWEE and Task Force Determine Eligibility Requirements

- Identify/prioritize programs, practices, equipment types

Application Process

- Once Launched, application open to farmers, co-ops, eligible entities
- Proposal to include:
  - Description of precision/regenerative ag projects
  - Requested technologies/practices
  - Demonstrate how the application aligns with their farm management plan.

Awardees must:

- Every grant awarded will require a carbon intensity score for the impacted crops/fields to be registered (Base-line and annually for the grant period)

Role of the Task Force (TF)

The Ag Registry and Grants Program TF will serve as a strategic advisory body.

It will function as a sounding board to ensure effective coordination and implementation of the program's three core strategies:

1) Establish a Carbon Intensity (CI) Score Registry

2) Regenerative Agriculture Grants

3) Precision Agriculture Grants

Task Force Ask

- Identifying Eligible Practices
  - Define and periodically review criteria for regenerative and precision ag practices eligible for grants.
- Aligning Policy
  - Coordinate with local, state, and federal policies to ensure consistency and maximize impact.
- Providing feedback and input on the various components of the program
  - CI Registry
  - Data Security - ensure transparency and farmer trust in data handling.

Timeline and Milestones

- Time Commitment:
  - Monthly Meetings or in alignment with other subcommittee meetings.
  - Quarterly afterwards until completion of the Grant in 2029.
- Ag Registry and Grants Program Timeline and Milestones
  - 2025-2026: Finalize registry criteria, develop grant framework, initial outreach
  - 2026–2028: Full program rollout, monitor adoption and impact, refine incentives
  - 2029: Sunset of ONE RED Task Force; delivery of final recommendations and program review

Further Information

ONE RED — *Opportunity for Nebraska: Reducing Emissions & Decarbonization*

Program website: http://dee.ne.gov/ndeqprog.nsf/onweb/cprg

The ONE RED portion of the Department website includes several pages:

- Program home page
- Priority Climate Action Plan
- Comprehensive Action Plan
- Implementation Grant
- Contact Information

Check the website frequently for information as plans & programs develop.

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DWEE.ONERED@nebraska.gov

ProducerConnect

Smarter Nitrogen & Irrigation Management

Supporting Nebraska Producers for a More Profitable & Sustainable Future

A Longstanding Commitment to Water Management

Nebraska's NRDs have collected crop and water use data from producers for decades.

NRDs also have a long history of groundwater monitoring for quantity and quality

Long-term concern: rising nitrate concentrations in groundwater

While this data has guided NRD decisions and policies, it wasn't always accessible for producers.

Connecting the Dots: From Data to Insights

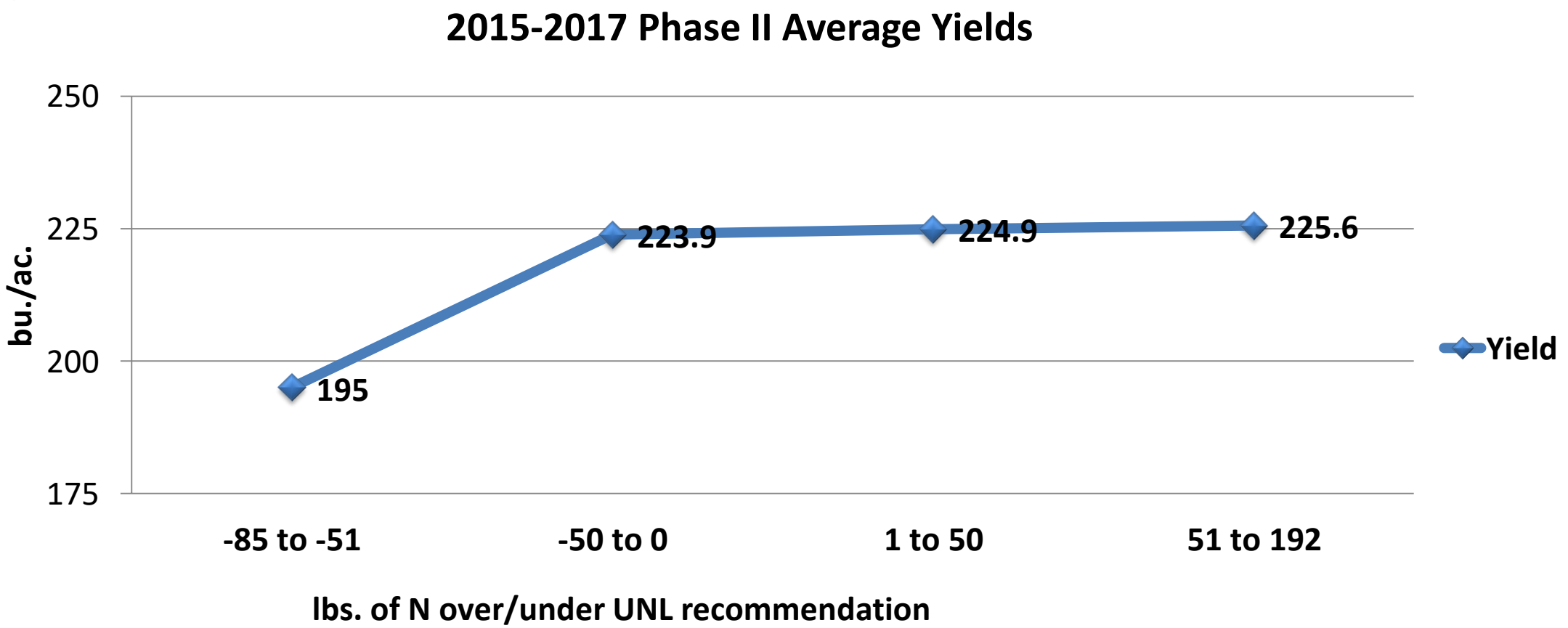
NRDs observed a clear pattern in crop report data:

- Overapplication of nitrogen fertilizer was common
- Groundwater in high-application areas showed elevated nitrate levels

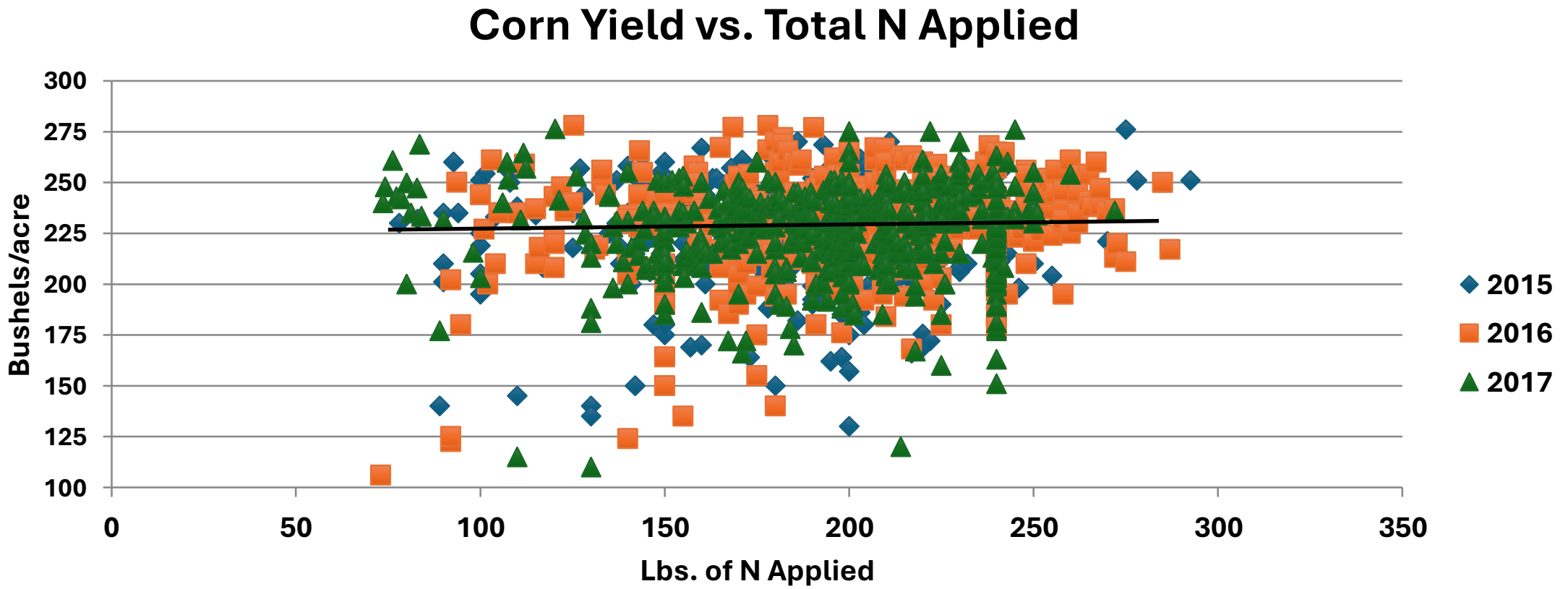
Yields plateaued beyond a certain nitrogen rate-highlighting a point of diminishing return

NRDs needed a better way to share this insight with producers

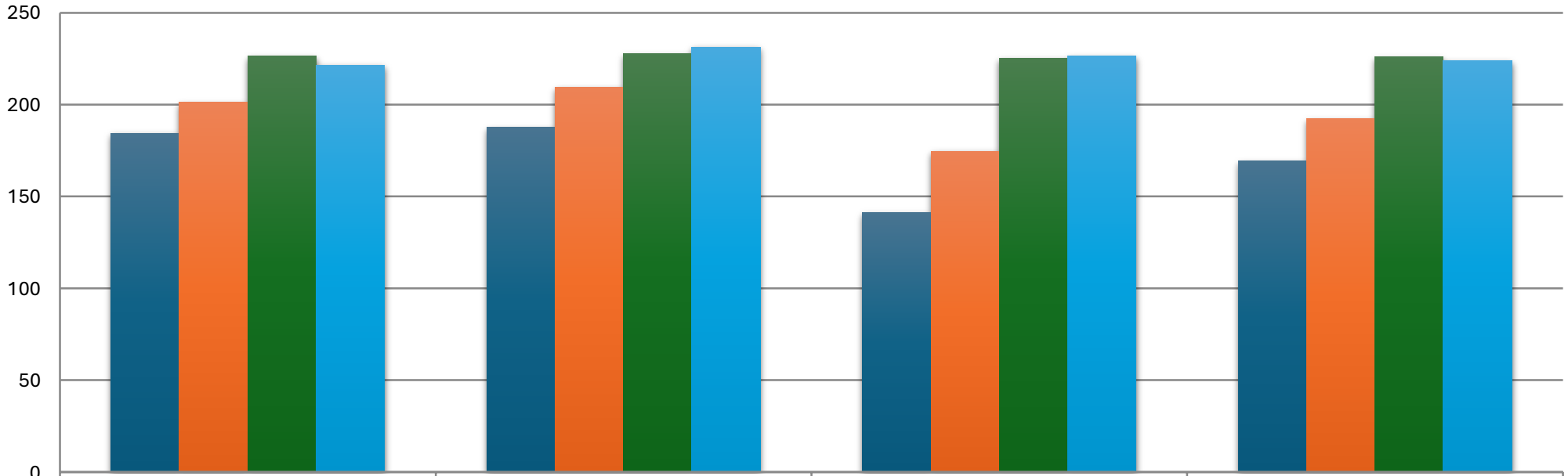
2015-2017 LNNRD Phase II Crop Reporting Data. Represents 190,000 corn acres.



2015-2017 LNNRD Phase II Crop Reporting Data. Represents 190,000 corn acres.



Actual Nitrogen and Yields



	Corn on Corn	Corn on Specialty	Corn on Soybeans	Averages*
N Recommended	184.42	187.7	141.15	169.44
N Applied	201.27	209.51	174.61	192.35
Expected Yield	226.53	227.61	225.24	226.13
Actual Yield	221.63	231.31	226.55	223.84

2015-2017 LNNRD Phase II Crop Reporting Data. Represents 190,000 corn acres.

The Vision: A Nitrogen Dashboard

NRDs wanted to empower producers with the same data used in NRD decision-making

Goal: Empower better nitrogen & irrigation management

Goal: connect farm practices to environmental outcomes

This idea would eventually evolve into a broader, more functional tool: Producer Connect

Turning Vision into Reality

- Partnerships made it possible:
  - NRDs align on shared goals
  - Partner with Longitude 103 for development
  - Support from state, federal, and private partners
- The result: Producer Connect, a Nebraska-built platform for Nebraska producers

What is Producer Connect?

Producer Connect has two goals:

1. Simplified crop reporting (step-by-step platform)
2. Deliver actionable data to producers, helping them:
   - Understand the environmental impacts of their nitrogen and irrigation decisions
   - Improve on farm-management for both productivity and sustainability

Producer Connect transforms data into decisions-benefiting producers, NRDs, and Nebraska's water resources.

Purpose of Producer Connect

- Address nitrogen overapplication and improve irrigation efficiency
- Protect Nebraska's groundwater quality and quantity
- Provide field specific nitrogen recommendations
- Streamline reporting across all NRDs
- Supports crop yields and farm profitability

Key Features

Empowering Producers: personalized recommendations, farm insights

Simplified Reporting: fast uploads, easy data entry

Secure & Private: password protected, confidential

Tracking & Feedback: NUE, yield trends, historical data

ProducerConnect

Home Features Details Download

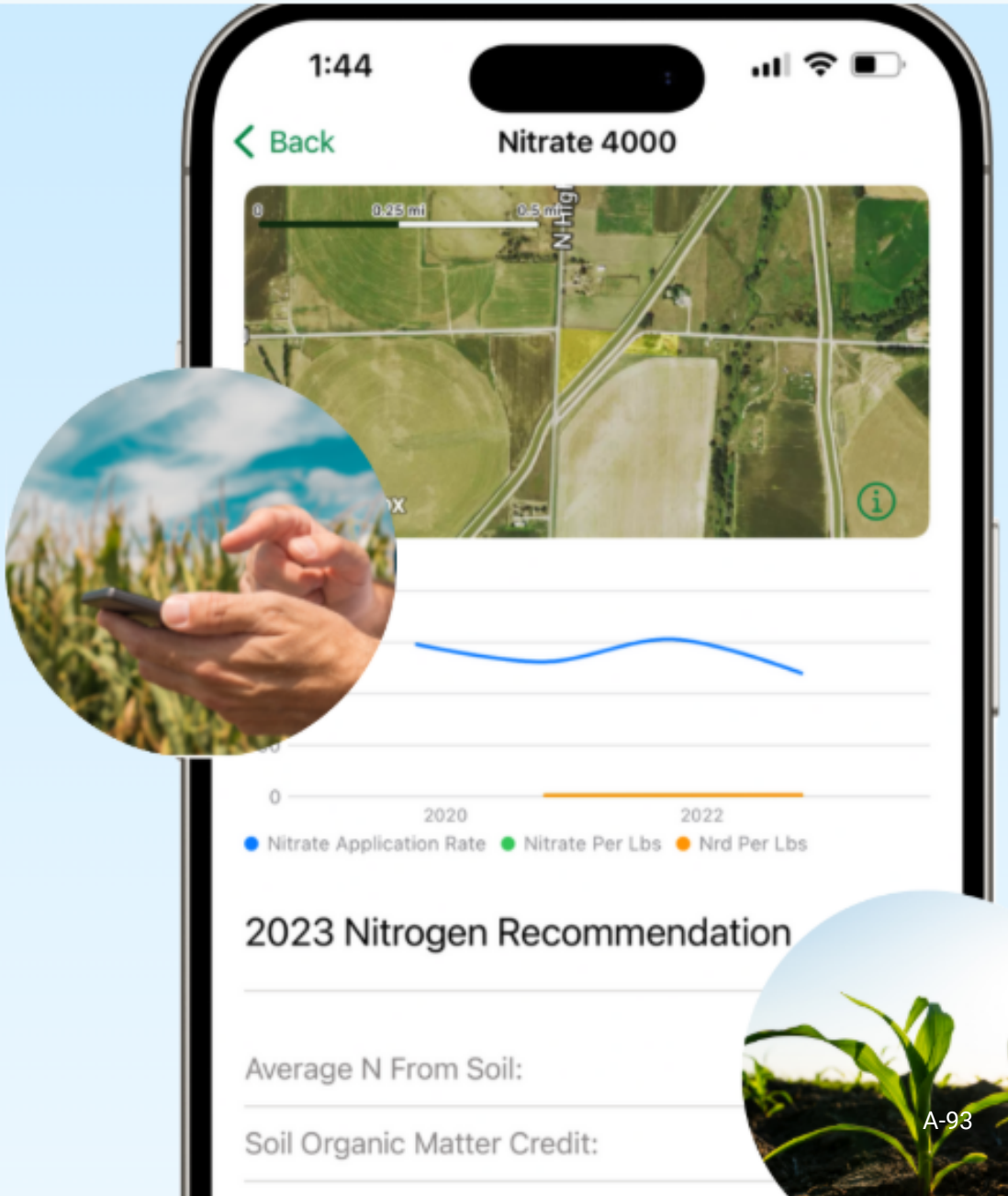
Water Usage and Nitrogen Insights

Get district data and update your information while seeing water use and nitrogen recommendations

Web Version

Download

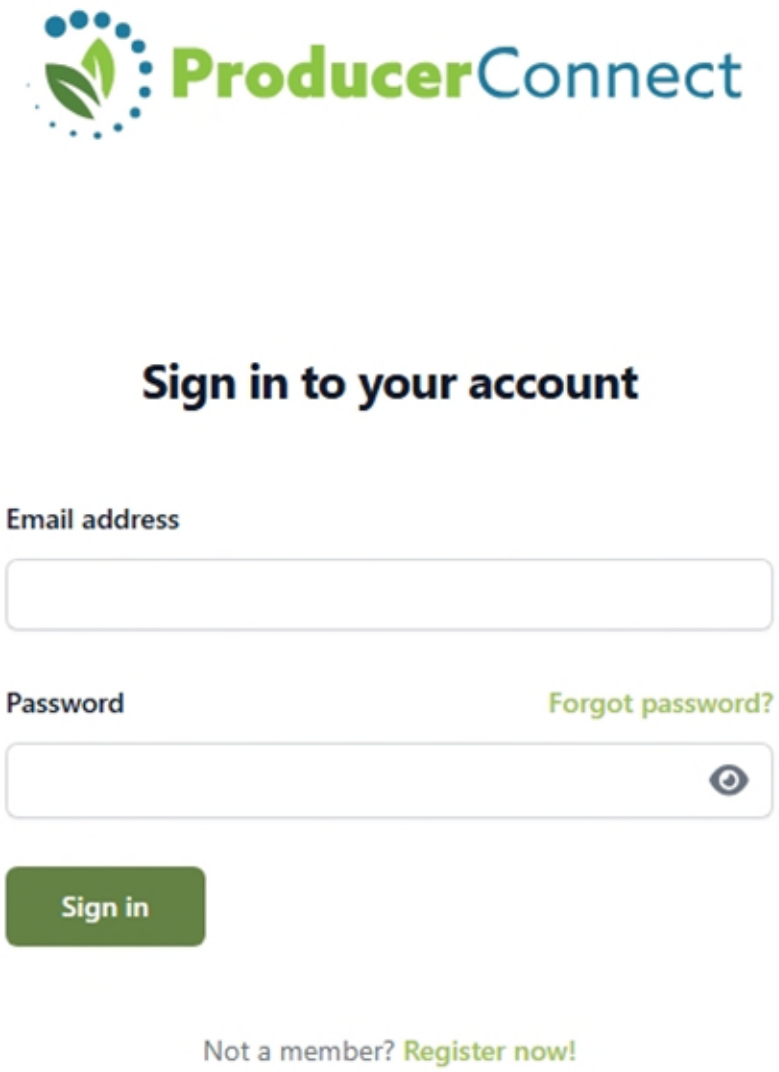
Download



Secure & Private

Your Data, Your Control

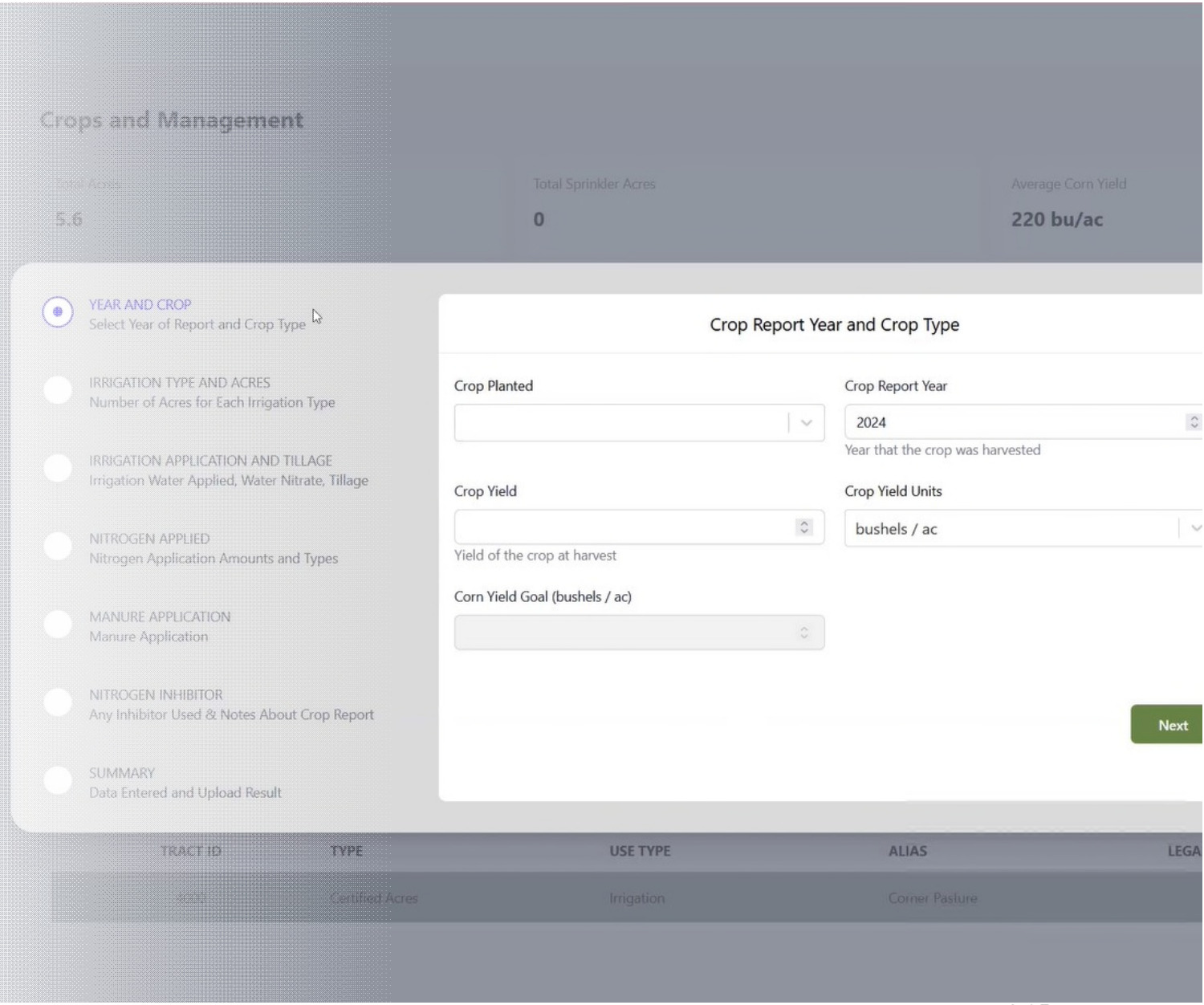
- Secure, password-protected logins
- Private access for each producer
- Confidential farm data storage



Empowering Producers

Farm-Specific Insights at your Fingertips

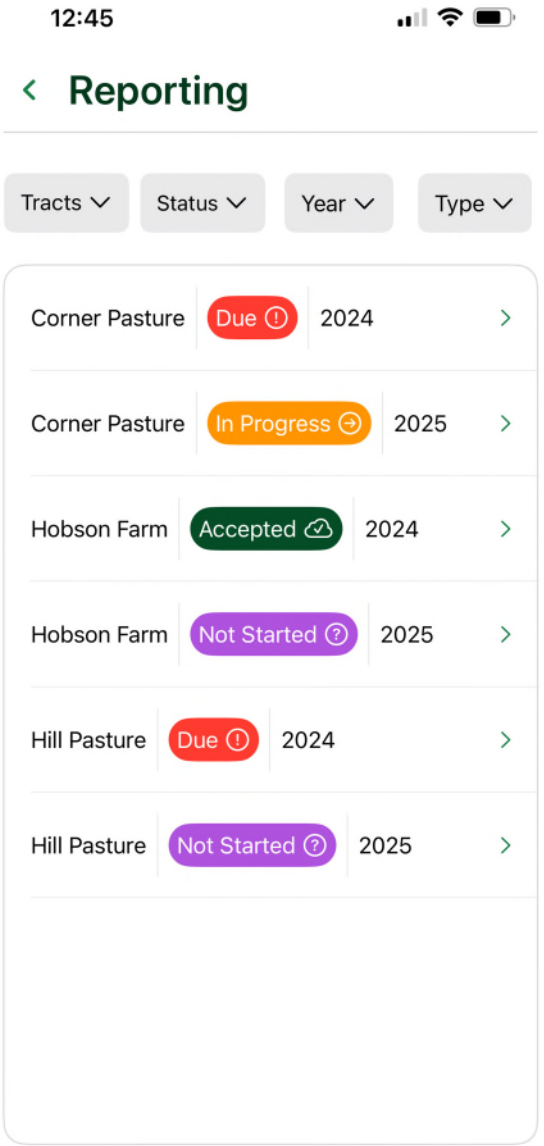
- Step-by-step data entry
- Personalized nitrogen recommendations
- Intuitive, user-friendly interface



Simplified Crop and Water Reporting

Fast, Accurate, Hassle-Free

- Upload flow meter photos directly from your phone
- Submit irrigation, soil, and crop data in seconds
- Save time and improve data quality



Producer Connect

app.producerconnect.com/pools

ProducerConnect

Thad Kuntz

- Home
- Reporting
- Tract
- Pools
- Wells
- Flowmeters
- Chemigation
- Soil Samples
- Crops & Management
- Nitrogen
- Settings

7.39 inches remaining

Based on current data, subject to change

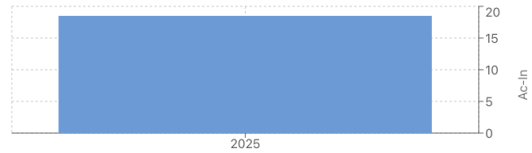
No irrigation data

Total Acres / Pool Count

203.3 / 1

Name	Acres
Kuntz	203.3

Usage Annual | Monthly | Daily



Allocations

Filters

Date	Description	Amount	Balance
12/31/2024	Carry Forward	11.97 AF	121.97 AF or 7.48 in / acre
12/31/2024	Initial Allocation	110 AF	110 AF or 6.75 in / acre

https://app.producerconnect.com/pools

connect.com/flowmeters

Thad Kuntz

Flowmeter and Usage Overview

Total Water Usage

40.66 ac-in

18.85% ↑ than last year

Water Use per Acre

0.19 in / ac

0.09% ↑ than last year

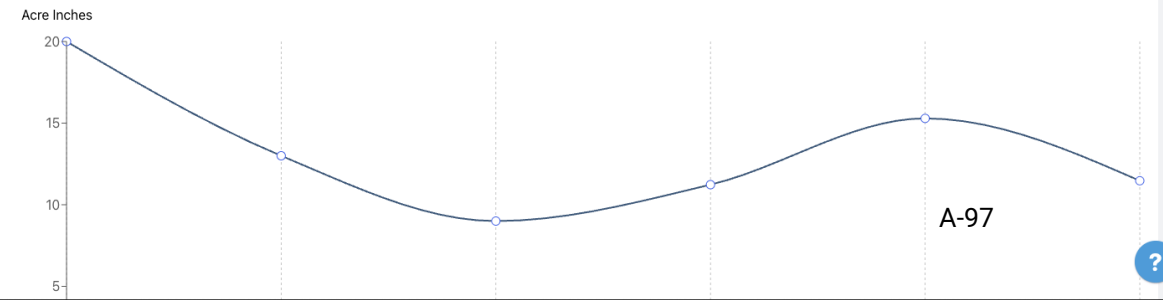
Flowmeter Count

2

Flowmeter Info

FLOWMETER ID	METER LOCATION	SERIAL NO	FACTOR	ALIAS	
5000	Well	16-05568-08	0.01		Add Reading
5001.1	Well	17-0555-09	0.01		Add Reading

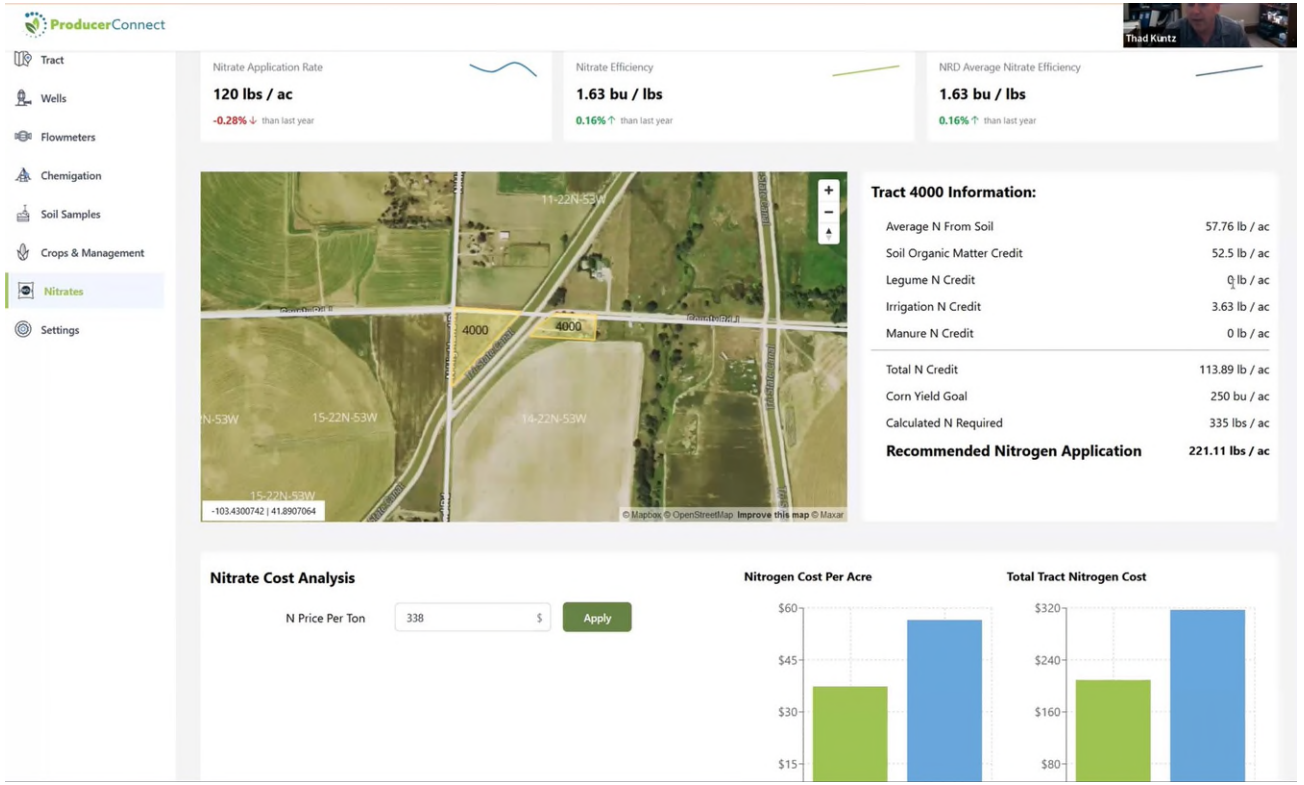
Flowmeter 5000 Usage



Tracking & Feedback

Make Better Decisions Year over Year

- Tracking nitrogen use efficiency (NUE)
- Monitor crop yields and irrigation patterns
- Access historical data for smarter planning



Economic Benefits

- Optimize input costs
- Apply fertilizer at agronomic rates
- Maintain crop yields
- Most profitable ≠ highest yield

Environmental Impact

- Reduce nitrate leaching
- Boost irrigation efficiency
- Promote long-term sustainability of water resources
- Protect Nebraska’s groundwater for future generations

Built for Nebraska, By Nebraska

A Collaborative Effort

- NRD-led, producer-focused
- In partnership with state/federal agencies
- Backed by agriculture organizations
- Design to serve producers & protect our shared resources
- 100% FREE

Nebraska's Natural Resources Districts www.nrdnet.org
Protecting Lives • Protecting Property • Protecting the Future

NRCS Natural Resources Conservation Service

Ultimate Goal

Precision Management for the Future

- Help producers thrive economically
- Protect Nebraska’s groundwater
- Support the next generation of sustainable agriculture

Questions

Jennifer Swanson

Director of Water Quality Initiatives

Nebraska Association of Resources Districts

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O: 402-471-2219

Nebraska's Natural Resources Districts www.nrdnet.org

Protecting Lives • Protecting Property • Protecting the Future

NRD Manager and Task Force Survey Responses		*NRD Managers*	*Task Force*
Practice Category	**Practice**	**Practice Score**	**Practice Score**
	Water Management and Irrigation System	**Score Order**	**Score Order**
Water - Irrigation Management Tools	i. Meters with or without telemetry	**1**	**1**
	ii. Automated irrigation and utilization of weather data	**1**	**2**
	v. Soil Moisture Sensors - pivot mounted, prescription based, others	**2**	**1**
	iii. Conversion from gravity to other forms of irrigation	2	3
	iv. VRI/Retrofit existing pivots with mobile control	2	2
	vi. Re-nozzle Pivots/sprinkler packages.	3	3
	vii. Commingled ground and surface water irrigation connections	5	4
	Precision Agriculture		
Fertilizer - Precision Ag/Split Application Methods	i. Chemigation Equipment	**1**	**1**
	ii. Planter Fertilizer Attachments	**1**	**1**
	iii. Others - Precision Manure Application Equipment	**1**	**1**
	iv. Speed Control for Pivots	2	2
	v. Inhibitors, Slow Release Fertilizer	2	3
	vi. Satellite Guidance Equipment	2	2
	vii. Dry Fertilizer Spinner Equipment	3	3
	viii. Saddle Tanks	3	3
	ix. YDrop Equipment	3	3
Fertilizer - Variable Rate Prescription	i. Soil Sampling/Yield Mapping	**1**	**1**
	ii. Models/Platforms - such as AltN, Sentinel and others	**1**	**1**
	iii. Satellite Imagery	**1**	**1**
	iv. Pivot Mounted Sensors	2	2
	v. Drone Imagery	2	2
Fertilizer - Variable Rate Technology	i. Irrigation system upgrades	**1**	**2**
	ii. Meters	**1**	**1**
	iii. Software	2	3
	Soil Health and Regenerative Agriculture		
Soil Health	i. Development of Soil Health and/or Nutrient Management P	**1**	**1**
	ii. Soil Sampling	**2**	**1**
	iii. No-Till	2	2
	iv. Critical/Vulneralbe Area Seeding	2	5
	vi. Composting	2	5
	v. Cover Crops	3	2
	vi. Summer Annual Forages not tied to fire	4	4
	vii. Third crop in rotation	5	4
	Data Collection and Monitoring Technologies		
Decision Support Systems	*i. Producer Connect (non cost share item)*	**1**	**1**
	ii. Climate Field View	3	2
	iv. CropX	3	2
	iii. Trimble Ag Software	3	2
Livestock Management and Regenerative Grazing Equipment			
Grazing Mangement	i. Cross fencing	2	4
	ii. Pipelines	2	5
	iii. Tanks	2	5
	iv. Solar wells	2	3
	v. Heavy Use Area Protection	3	5
	vi. Range, Pasture, Hay Planting	5	4
Regenerative Practices	ii. High density portable electric fencing	3	5
	iv. Moveable water tankes etc.	4	4
	i. Manure Application Sensors and Flow Control Systems	5	3
	iii. Virtual Fence Collars and Rotaional Grazing Implementati	5	4
	v. Moveable Shelters	5	4
	Other		
Other - Variable Rate Technology	i. Variable Rate Seeding	5	3
	ii. Pest Management	5	4

**Non-Cost Shareable Items but high priority for implementation*

Methods and Resources

Goal 1: Ensure nitrogen fertilizer recommendations are agronomically, economically, and environmentally appropriate for Nebraska producers.

Nitrogen fertilizer recommendations aim to balance crop needs with responsible resource management. Ensuring that those who provide nitrogen recommendations are properly educated is essential for making fertilizer decisions that are agronomically sound, economically efficient, and environmentally appropriate, especially in high NRD phase areas and Wellhead Protection Areas.

Action Item:

- Create a nitrogen management ~~certification~~education program for fertilizer salespersons or advisors who make nitrogen fertilizer recommendations within two years.
- Include nitrogen management training for Nebraska certified crop advisors (CCAs) as continuing education units (CEUs) within two years.
- Incentivize producers applying commercial nitrogen within NRD Phase II, III, or IV areas and Wellhead Protection Areas to submit a nitrogen application plan to the local NRD. The plan must be created with a certified nitrogen advisor. Consider whether nitrogen application plans shall be required.

Metrics for Success:

- Number of certified advisors.
- Number of nitrogen management plans signed off on by a certified advisor.
- All fields using commercial nitrogen in an NRD Phase II, III, or IV, or Wellhead Protection Area have a certified nitrogen management plan submitted to the NRD before nitrogen is applied.

Goal 2: Incentivize producers to increase the percentage of nitrogen that is applied in season versus out of season to improve overall nitrogen use efficiency.

Increasing the percentage of nitrogen applied in-season, rather than out of seasons is critical for improving overall nitrogen use efficiency. This targeted timing not only supports better crop growth and higher yield potential but also lowers input costs by reducing the

need for excess application. Shifting a greater share of nitrogen applications to in-season strengthens both farm profitability and soil and water health.

Action Items:

- Increase the number of pivots outfitted for fertigation by offering cost share dollars to producers in NRD Phase II, III, or IV areas and Wellhead Protection Areas within five years. Cost considerations include pumps, tanks, and controls.
- ~~Limit~~ Promote reduction of fall application of commercial nitrogen considering current UNL nitrogen recommendations (UNL Extension NebGuide G2365, Dec. 2024) and opportunities for reducing overall input cost. Start with NRD Phase II, III, or IV areas and Wellhead Protection Areas. ~~Short term 100% compliance starting January 1, 2028.~~
- Encourage NRD boards to review their current requirements for fall nitrogen recommendations, particularly in phase areas with increasing nitrate levels.

Metrics for Success:

- Ten percent increase in pivots outfitted for fertigation by January 1, 2028.
- Twenty percent increase in pivots outfitted for fertigation by January 1, 2030.
- Percent of producers in NRD Phase II, III, or IV, and Wellhead Protection Areas applying commercial fertilizer in accordance with UNL recommendations.

Goal 3: Increase adoption of sensor- and model-based nitrogen recommendation technology, such as Sentinel Ag, Adapt-N, or similar technologies.

Adopting sensor- and model-based nitrogen recommendation technologies provide real-time or field-specific insights into crop nitrogen status, soil conditions, and expected yield potential, enabling producers to tailor applications more precisely. By improving timing and placement, producers can enhance nitrogen use efficiency and reduce losses to groundwater and surface water.

Action Items:

- Incentivize producers to use these technologies in at least one field in any NRD Phase II, III, or IV area or Wellhead Protection Area.

Metrics for Success:

- Numbers of new adopters.

- Document use of these technologies in NRD Phase II, III, or IV areas and Wellhead Protection Areas and see 25% annual growth.

Goal 4: Increase adoption of soil health practices which will allow producers to increase nutrient cycling and reduce overall nitrogen application rates over time. Improved soil health will also maximize water infiltration and crop utilization while limiting runoff.

Promoting the adoption of soil health practices enables producers to enhance nutrient cycling, reducing the need for high nitrogen application rates. Healthier soils improve water infiltration, optimize nutrient availability for crops, and minimize nutrient runoff and leaching. By investing in healthy soil practices, producers can achieve more efficient and sustainable crop production.

Action Items:

- Create incentives to promote soil health practices. Soil health practices are meant to accomplish one or more of four core principles for improving soil health: (1) minimize soil disturbance, (2) maximize the presence of a living root system, (3) maximize soil cover, (4) maximize biodiversity. For more information see: https://www.farmers.gov/conservation/soil-health.
- https://nebraskastrategicagcoalition.org/ ~~Add soil health website link~~

Metrics for Success:

- Increase in acres with cover crops.
- Decrease in acres with full or conservation tillage.
- Increase in acres with sampled manure or compost applied.
- Number of producer to producer engagement opportunities.

Goal 5: Educate Nebraska producers on nitrogen fertilizer and irrigation best management practices to limit nitrate leaching to groundwater.

Continued education for Nebraska producers on nitrogen fertilizer and irrigation best management practices is important in protecting groundwater quality, specifically in NRD phase areas and Wellhead Protection Areas with increasing nitrate levels. By increasing awareness and understanding of proper nitrogen application rates, timing, and methods,

as well as efficient irrigation strategies, producers can minimize nitrate leaching into groundwater.

Action Items:

- Within three years, provide all producers in NRD Phase II, III, or IV areas and Wellhead Protection Areas with education on nitrogen best management practices including: Use of inhibitors, in season application, reduced rates, technology-based recommendations (models & remote sensing).
- Within three years, provide all producers in NRD Phase II, III, or IV areas and Wellhead Protection Areas with education on irrigation best management practices including: water meters; soil moisture probes (incorporate incentives e.g., incentive paid to the grower for up to 2 soil moisture probes); irrigation modeling, ET monitoring, and other options.

Metrics for Success:

- Number of producers educated.
- Number of irrigation improvements made including number of added water meters, soil moisture probes, modeling or ET monitoring tools.
- Percentage of nitrogen management plan acres including the following: Nitrification inhibitor, in season application, lower application rates than in prior years, advanced technology-based recommendation.

Nitrate Legacy and Drinking Water Access

Goal 6: Develop consistent education, marketing, and outreach materials related to water quality, quantity, and public health for use across the state.

Developing a consistent, statewide education, marketing, and outreach materials will help Nebraskans understand key issues related to water quality, quantity, and public health, including nitrate contamination. Uniform materials and messaging ensure that communities receive clear, accurate information about safe water practices, potential health risks, and strategies to reduce nitrate levels in drinking water. This coordinated approach supports public awareness, encourages responsible water use and nutrient management, and leverages ongoing statewide efforts to protect both water resources and public health for the near and long term.

Action Items:

- Within six months, develop strategy for education materials to ensure consistent messaging is used throughout the state.
- Within 12 months, develop marketing and outreach materials for water quality, quantity, and public health with an emphasis on vulnerable areas and populations including but not limited to rural areas, newborns, children, and older populations. Public awareness activities may include public service announcements, ads, information kits and brochures, and promoted social media campaigns.
- Coordinate efforts with health care providers, schools, banks, home health practitioners, UNMC, UNL, NRDs, DHHS, community water systems, etc.

Metrics for Success:

- Number of materials distributed.
- Review materials, distribution lists, and list of agency partners no less than annually.

Goal 7: Provide support and resources to public and privately owned drinking water wells to ensure safe and reliable drinking water for Nebraskans.

Ensuring safe and reliable drinking water for all Nebraskans requires a coordinated, proactive approach that supports both public and privately owned wells. By integrating

existing water planning efforts, strengthening community engagement, and expanding technical assistance, the state can better identify risks, address contamination concerns, and improve long-term water reliability. Enhanced data use and stronger partnerships with nutrient management staff will help protect vulnerable recharge areas and support informed decision-making. Continued efforts to connect well owners, communities, NRDs, and state agencies with resources will safeguard public health and promote sustainable drinking water management practices across the state.

Action Items:

- Leverage and integrate existing water planning efforts (source water, wellhead protection, integrated management plans, and watershed plans) to create community driven stakeholder groups that inform and educate residents on the connection between drinking water quality and public health.
- Provide resources for ongoing annual sample collection, analysis, and interpretation of lab results for domestic well users.
- Utilize data and tools to proactively support community water systems.
- Build upon existing state and federal resources to establish Source Water Protection and Wellhead Protection Area Coordinator positions (nutrient management) that collaborate with NRDs and DWEE to provide technical assistance and guidance on working agricultural lands that intersect with areas of recharge for public water supply wells.
- Identify NRDs with budgeted and hired nutrient management staff and support continued funding of these positions. Develop a report on NRDs without nutrient management staff, including estimated funding needs and opportunities for shared staffing across adjacent NRDs.
- Provide funding for NRDs nutrient management staff, with targeted support for community Wellhead Protection Areas. Annually report nutrient management practices adopted by producers and the associated acres, and review findings with community leaders and the public.
- Implement nutrient management plans for every producer~~, with~~ and summarize the plans for ~~annual reporting to~~ communities ~~on the locations, acres, and conservation practices being implemented through such plans~~.

Metrics for Success:

- Number of communities engaged in water planning efforts.
- Number of domestic wells sampled annually.
- Number of communities with established Wellhead Protection Areas.
- Number of NRD nutrient management staff.

Goal 8: Expand rural water systems and regionalization of water systems.

Regionalization of water systems is a tool for those communities that do not have enough resources to build and maintain water treatment systems. By combining water systems economy in scale can be realized and management efforts can be focused on maintaining high quality source water for those communities. The development of regional water system will likely be a foundation for the expansion/development of future rural water systems.

Action Items:

- DWEE shall identify potential water system regionalization opportunities and report on findings. Survey all Nebraska communities and NRDs for potential water system regionalization. Include identification of communities needing support and identify potential water systems that could potentially provide potable water.
- Evaluate regionalization opportunities for potential State Revolving Loan Funds and other funding opportunities. Identify loan and loan forgiveness conditions.
- Evaluate opportunities for sustainable funding for drinking water regionalization, including assistance with collecting water quality data and understanding regional water quality trends.

Metrics for Success:

- Complete survey and reporting by DWEE within 24 months.
- Complete annual survey of communities and NRDs identified to have potential water system regionalization to determine status and needs.
- Completion of water system regionalization for those communities requesting financial support.

Water Conservation and Quantity

Goal 9: Expand water measurement across the state for groundwater and surface water.

Expanding water measurement is important for sustainable water management in Nebraska. The Task Force recommends beginning with voluntary participation supported by cost-share incentives, followed by mandatory requirements if desired outcomes are not met. Equally as important is educating water users on how to interpret and apply this measurement data, including benchmarking and informed decision-making to optimize water use. Existing measurement efforts will be leveraged to maximize efficiency, collaboration, and informed decision-making.

Action Items:

- Establish a tiered cost-share program that incentivizes voluntary ~~metering~~ measurement for both groundwater and surface water~~, followed by mandatory requirements if desired behavioral changes are not achieved and defined metrics are not met by 2030~~. The program should offer higher cost-share rates initially, with the share decreasing over time. Address surface water ~~metering~~ measurement separately, considering differences in how surface water is measured.
- Create a recommendation for best management practices for measurement programs. This may include a list of approved devices and may consider installation and maintenance details. Such specifications could be modeled after existing rules and policy documents from NRDs who have metering requirements in place.
- The Task Force recommends integrating measurement data within the benchmarking capability of Producer Connect or similar NRD databases. The water use data should be reported at the NRD level for meaningful local insights, while the State (DWEE) should receive only aggregate information to ensure that individual producer data cannot be identified. When establishing reporting requirements, data privacy concerns must be considered.
- Develop education for producers and agronomists on water measurement data, including how to use the data to better producer production and practices and recognizing that one-on-one interactions often produce more impactful results.
- Explore opportunities to share and leverage existing water-use data collected by pivot manufacturers. This includes identifying what data is already available and evaluating how it could support statewide water-management and reporting efforts for water use.

Metrics for Success:

- Number of new measurement devices implemented.
- Percent of statewide producers with water measurement in place.

Goal 10: Develop strategies to support large water users and continued economic growth in the State.

Water-intensive industries often serve as critical drivers of local and regional economies throughout the state, but demand can place pressure on water supplies. By implementing proactive planning and coordination, policymakers and stakeholders can support economic development while ensuring water availability for generations to come.

Action Items:

- Improve coordination between State Department of Economic Development, Department of Water, Energy, and Environment, Natural Resources Districts, Power and Irrigation Districts, water and energy utilities, ~~local~~ counties and municipalities for siting of new industries.
- Support NRDs in establishing a more consistent messaging regarding "large water users" statewide, while allowing for regional variability as necessary. Facilitate resource sharing and continued dialogue among NRDs and surface water stakeholders – some of which may include statutory requirements and already have existing approaches established that could be used as an example.
- Develop public facing portal for new industries to assess water availability and requirements.
- Convene a group of Nebraska water experts, surface and groundwater managers, to review and reevaluate existing water laws that allow for (or might hinder) continued economic growth.

Metrics for Success:

- Review coordination efforts considering statewide priorities no less than annually.
- Launch public facing portal within 18 months.

Goal 11: Expand water storage opportunities and management of water consumption.

Expanding water storage opportunities and improving the management of water consumption are essential strategies for enhancing water sustainability. By investing in

new and existing reservoirs, aquifer recharge systems, underground storage, and other retention projects, the State can better capture and retain water during periods of surplus for use during droughts or high-demand periods. Education and outreach is also important, helping stakeholders understand the benefits of these water projects.

Action Items:

- Identify and promote existing recharge and storage projects and expand use of excess surface water flows for intentional groundwater recharge and underground storage.
- Invest in existing storage and recharge systems and c~~C~~onstruct new regional storage or recharge facilities where feasible.
- Educate public and stakeholders on water quality and quantity benefits, including, but not limited to topics such as water conservation and community water consumption; the benefits of recharge for not only quantity, but for water quality as related to nitrates in groundwater.

Metrics for Success:

- Launch publicly available resources identifying storage and recharge opportunities across the state.
- Number of public and stakeholder engagements.

Financing and Incentives

Goal 12: Establish a centralized clearinghouse to inventory and prioritize water quality and quantity projects across Nebraska.

Establishing a centralized clearinghouse for water projects in Nebraska would create a coordinated platform to inventory, track, and prioritize initiatives addressing both water quality and quantity. By consolidating information on ongoing and proposed projects, funding opportunities, and regional needs, this would serve as a valuable resource for state agencies, local governments, and other stakeholders and improve decision-making, reduce duplication of efforts, and ensure resources are directed to high priority projects. This approach can enhance Nebraska's ability to manage its water resources sustainably, support local communities, while protecting public health.

Action Items:

- Establish a clearinghouse platform to compile, organize, and maintain information on water project needs across the state.
- Designate a point person within DWEE responsible for maintaining the clearinghouse who shall be responsible for coordinating with the Department of Economic Development to capture public and private investment opportunities.
- Use standardized criteria for prioritizing projects based on factors such as environmental impact, public health, regional needs, cost-benefit, urgency, and alignment with state and local water goals.
- Implement annual review process to update the clearinghouse, reassess priorities, and track project progress.

Metrics for Success:

- Point person assigned: Designation and onboarding completed of Water Project Coordinator or equivalent role within six months.
- Clearinghouse launch: Minimum viable product established within six months and functional clearinghouse established ~~by~~ within 12 months.
- Complete annual review and maintenance of clearinghouse to best serve the State.

Goal 13: Identify and implement sustainable, diversified funding models to support the development, implementation, and maintenance of priority water projects in Nebraska.

The Task Force recommends identifying and implementing diversified funding to ensure that Nebraska's water systems can meet both current and future needs efficiently and sustainably. By leveraging a mix of federal, state, local, and private resources, these funding strategies can provide consistent financial support while reducing reliance on any single source.

Action Items:

- DWEE point person will conduct a funding analysis to identify existing state, federal, local, and private funding sources.
- Work to secure financial resources that will assist with upgrades and improvements to ensure long-term financial stability but most importantly, to ensure that residents of the state have access to safe and reliable drinking water.
- DWEE point person will evaluate gaps, limitations, and overlap within existing funding mechanisms.
- Based on the findings from abovementioned analysis the point person will collaborate with communities, irrigation districts, NRDs, and producers, etc. The point person should also review available funding opportunities to determine when partnerships should be developed to pursue grants and other funding opportunities from the clearinghouse in Goal 12.
- Explore innovative funding models including but not limited to private funds (outside investments like Google, Frito Lay, Amazon, etc.); tax revenue; revolving loan funds; or bonds.

Metrics for Success:

- Funding analysis complete: Funding and gap analysis completed within 12 months.
- Funding alternatives identified: Identify alternatives or innovative funding models and present with pros and cons within 12 months.
- Dollars secured through legislative processes and new funding allocations (private donations and expanded grant opportunities)
- Maintain and update fund analysis and partnership opportunities with no less than annual reviews.

Goal 14: Recommend funding priorities for ONE RED funding and other potential funding sources.

Task Force members were surveyed to identify priorities for ONE RED funding and will continue to serve as a strategic advisory body for a portion of these funds, supporting the

implementation of Task Force recommendations that align with grant requirements. The Task Force has identified as equally important the ongoing identification of funding mechanisms and opportunities to leverage federal, state, local, and private resources for water projects in the long term.

Action Items:

- Develop a tiered incentive program based on ONE RED survey results (see attached results), allowing each NRD flexibility in setting scoring criteria and prioritizing practices. The program should be simple and scalable for producers and crop consultants, outline clear steps to achieve measurable outcomes, and consider alignment with existing regulatory frameworks. This includes offsetting costs or prioritizing eligibility for practices that create strategic partnerships to incentivize compliance with existing NRD regulations or other laws.
- Communicate enhanced market value to producers and crop consultants by demonstrating how operating at an improved carbon intensity ("CI") score can create additional value for their commodities in other markets.
- Identify additional funding and incentive priorities that encourage greater adoption of innovative technologies by producers across the State.

Metrics for Success:

- ONE RED Incentive Program Established: Launch a minimum viable program within one year and provide incentives to producers for the 2027, 2028, and 2029 growing seasons in accordance with grant requirements.
- Continued Feedback: Provide annual feedback on funding utilization and priorities.

Programs Addressing Nitrate Index

1. **Lower Loup NRD Phase II Rules and Regulations**
2. **Groundwater Nutrient Management Plans**
3. **Well Sampling Network**
4. **Chemigation Program**
5. **Nebraska Soil and Water Conservation Program**
6. **Well Decommissioning Program**
7. **Flow Meter and Telemetry Cost-Share Program**
8. **Variable Rate Irrigation Program**
9. **Advanced Soil Sampling Program**
10. **NiRIA Program**
11. **Vadose Zone Study**
12. **Community Water Suppliers**
13. **Broken Bow Drinking Water Protection Plan**
14. **Lower Loup NRCS-EQIP Priority Areas**
15. **Lower Loup Regional Conservation Partnership Program Grant (RCPP)**
16. **Nitrate Information and Education Outreach**
17. **Nitrate Studies**

Programs Addressing Nitrate

1. **Lower Loup NRD Phase II Rules and Regulations** (required) – LLNRD rules and regulations were updated in February 2024. Since 2020, there are three triggered Phase II Water Quality Management areas in the LLNRD. To become a Phase II WQMA requirements, the median nitrate level in that area has tested greater than 6.5 ppm for four consecutive years. In Phase II, a yearly 0-36" soil sample, an irrigation water nitrate sample, and manure analysis are required on all row-cropped fields. Nitrogen fertilizer application is not allowed until after March 1st and split application before and after crop emergence is required unless a labelled N inhibitor is used. Flow meters are required for monitoring water application as well as passing a nitrogen certification class every four years. LLNRD funded. Metrics for success – producer compliance.

2. **Nutrient Management Plans** – The LLNRD has developed a nitrate vulnerability model to identify problematic fields in groundwater quality management areas that exhibit signs of increased vulnerability to nitrate leaching. The LLNRD works with the landowners/operators of the fields to develop a nutrient management plan tailored to each field to alleviate the loss of nitrate to groundwater. LLNRD funded. Metrics for success – producer plan compliance/overall nitrate reduction on fields.

3. **Well Sampling Network** – The LLNRD has been sampling for nitrate in water wells since 1977. LLNRD staff collected a total of 3,036 water samples across the district in 2024 from irrigation, domestic, livestock, monitoring, and commercial wells. Irrigation wells are sampled during chemigation inspections every three years, and domestic and monitoring wells are sampled yearly. A report is delivered to landowners containing both the current and past five-year history of the sampled wells and information pertaining to drinking water with and crediting irrigation water with high nitrates. LLNRD funded.

4. **Chemigation Program** (required) – The LLNRD performs chemigation inspections once every three years on permitted chemigation sites in the district to ensure that the chemigation system is working properly. Technicians carry chemigation injection valves as part of the program to bring a chemigation site quickly into compliance. Metrics for success – producer compliance.

5. **Nebraska Soil and Water Conservation Program** (voluntary) – Practices within NSCWP that pertain to nitrate management include terrace construction, grassed waterway construction, critical area planting, and irrigation water management. All practices within NSWCP area offered at 50% cost-share rate. NARD/LLNRD funded. Metrics for success – producer participation.
6. **Well Decommissioning Program** (voluntary) – In 2024, the LLNRD cost-shared on 50 well decommissioning sites. The cost-share for the decommissioning of all inactive wells in the district is offered at a rate of 70% up to $500 per application. Proper decommissioning of inactive wells prevents groundwater contamination from all pollutants around the well. LLNRD funded. Metrics for success – producer participation.

7. **Flow Meter and Telemetry Cost-Share Program** (voluntary) – The LLNRD began its district-wide flowmeter cost-share program in 2025 to provide a 50% cost-share incentive on district approved flowmeters and telemetry. LLNRD funded. Metrics for success – producer participation.

8. **Variable Rate Irrigation Program** (voluntary) – In 2019, the LLNRD Variable Rate Irrigation (VRI) Program began offering cost-share to landowners to upgrade their center pivot systems to become VRI capable to control the speed of their center pivot to increase water application efficiency. The cost-share rate is based on the linear footage of the pivot system and landowners can perform up to 2 applications per year. LLNRD funded. Metrics for success – producer participation.

9. **Advanced Soil Sampling Program** (voluntary) – In 2023, the LLNRD began offering cost-share for advanced soil sampling practices districtwide. The program allows for one soil health test and one deep nitrate test per 40 acres. Each landowner can perform up to eight sample sets per year. The cost-share rate is up to $55 per soil health test and $15 per deep soil nitrate test. LLNRD funded. Metrics for success – producer participation.

10. **NiRIA Program** (voluntary) – In 2025, the LLNRD participated in the Nitrogen Reduction Incentive Act Program to promote the reduction of commercial nitrogen sources and encourage the adoption of new nitrogen efficiency technologies and practices. The Lower Loup received 69 applications on 7,431 acres. NDWEE funded. Metrics for success – producer participation.

11. **Vadose Zone Study** – Starting in 2024, the LLNRD is conducting a study to track the movement of nitrate through the vadose zone in the eastern part of the district. The study is being performed in conjunction with USGS for three years looking at nitrate movement on anhydrous, manure, and side-dressed fields. The study will give a better understanding of the movement rate of nitrates through the soil profile. LLNRD funded.

12. **Community Water Suppliers** (voluntary) – Since 2019, a working relationship has been developed through the community water reports from public water suppliers in the district. This relationship has yielded several cooperative projects for studies on groundwater quality, public safety, and nitrate management. LLNRD funding partner. Metrics for success – community partnership cooperation.

13. **Broken Bow Drinking Water Protection Plan** (voluntary) – The LLNRD is a project co-sponsor in the creation of the Broken Bow Drinking Water Protection Plan. Adopted in 2022, the plan provides guidance on the source water protection needs of Broken Bow, identifying potential sources of pollution, educating and involving stakeholders, developing a Wellhead Protection zoning ordinance, and lead to the implementation of BMPs within the Protection Plan Area. This plan creates a priority area for BMPs through NRCS-EQIP with adjusted cost-share rates for certain practices. LLNRD funding partner.

14. **Lower Loup NRCS-EQIP Priority Areas** (voluntary) – The LLNRD has eight priority areas established in cooperation with local NRCS offices to place an emphasis on groundwater quality and quantity conservation practices in LLNRD Phase II Water Quality Areas, Water Quantity Areas, and Watershed Management Areas. The LLNRD has developed promotional materials for promoting in-season nutrient management and irrigation water management technology in priority management areas for NRCS-EQIP and IRA funds. NRCS funded. Metrics for success – producer participation.

15. **Lower Loup Regional Conservation Partnership Program Grant (RCPP)** – In 2025, the LLNRD was awarded an RCPP grant for the "Irrigation and Nutrient Management in the Lower Loup Basin" project. The project would provide financial and technical assistance to producers to adopt water quality and quantity conservation practices to improve nutrient management and irrigation efficiency. With the change in federal administration, these RCPP grant funds are currently on-hold. The LLNRD is continuing its pursuit of funds for this grant to implement this program.

16. **Nitrate Information and Education Outreach** – The LLNRD performs outreach throughout the district with the *In the Loup* Newsletter which reaches 37,200 households, and the *Water Matters* and *Water Notes* publications that is mailed to producers within higher management areas in the LLNRD. These publications not only highlight LLNRD water quality programs and projects but act as an additional opportunity for promoting new studies and technologies on water quality including those that focus on nitrate and nitrogen application. These publications are also highlighted on the LLNRD website and social media pages. Producer meetings have been held in areas of high nitrate concern such as in Wheeler County in 2024.

17. **Nitrate Studies**
    a. Area 29 & Area 30 Isotope Studies – The LLNRD conducted isotope with the UNL Water Science Lab to determine the potential sources of nitrate in Phase II Area 29 in 2022 and Area 30 in 2021. The analysis of the samples isotopes can determine whether the source of the nitrate is organic (manure) or inorganic (commercial fertilizer). Both studies showed rapidly increasing nitrate levels from both organic and inorganic nitrogen sources.
    b. Area 30 UNL Vadose Zone Study – In 2022-23, a study was performed in conjunction with UNL to determine the nitrogen transformation and leaching potential of Area 30 Water Quality Management Area. The study indicated that the presence of both new and historical nitrate accumulation, while recommending that the best crop management practices include implementing corn-soybean rotations, split fertilizer applications, and tailoring site-specific fertilizer management to prevent additional nitrate contamination.
    c. Nitrate Legacy Assessment Study – In 2023, the LLNRD partnered with USGS and Lower Platte North NRD in a study to determine the age of nitrates in Platte and Nance counties. The study indicated that the nitrates present in the groundwater were young nitrates. Twelve samples exceeded the EPA maximum of 10 ppm nitrate. All twelve samples were less than 27 years old with three samples less than 5 years old.

d. Area 28 Groundwater Management Study – In 2012, the LLNRD hired a consultant to study in GWQMA 28 to determine the extent of the nitrate contamination and age dating of the nitrate. Sample results indicated that most of the upper aquifer nitrate dated to less than 2 years of age while most of the remaining samples were less than 30 years of age.
e. Irrigation well water concentrations of essential nutrients and other water quality properties study - In 2020, the LLNRD partnered with UNL to collect water samples to create a database of the 17 properties of water applied through irrigation wells to better understand the crediting of nutrients, including nitrate, through groundwater irrigation. 81 samples were collected across 12 counties of the district.
f. Derek Vogt - Agronomist – A split position with LLNRD and UNL. Working with UNL on nitrate modelling (Hydrus-1D) to model nitrate transport rate through the Vadose Zone. Also, part of the USDA/ARS/UNL CLASSIM model team that is a full modelling system that includes nitrate transport rates and crop uptake of nitrogen through a growing season.

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Water Quality Focused Programs

Phase III Rules and Regulations

- Phase III Rules and Regulations require agricultural producers in designated groundwater quality areas to implement crop reporting and best management practices aimed at protecting water resources. These regulations mandate annual crop and fertilizer reports, regular deep soil testing, and biennial irrigation well testing for nitrates, with particular restrictions on fertilizer application timing and recommendations for split applications exceeding 100 lbs per acre. The goal is to reduce nitrate contamination in drinking water and ensure sustainable agricultural practices, with compliance facilitated through tools like *Producer Connect*, which streamlines the reporting process for producers and crop consultants.
- District cost share is provided for deep soil sampling to determine nitrate available to the growing crop is completed in the Phase III Area.

Producer Connect

- *Producer Connect* is a groundbreaking web and mobile application suite designed to empower agricultural producers with the tools they need to meet reporting requirements, optimize inputs, enhance agricultural profitability, improve water quality, and increase irrigation efficiency. Producers in the Groundwater Quality Phase III Area of the LCNRD Bazile GMA are required to report crop and fertilizer activities annually. Producer Connect allows producers and/or crop consultants to submit annual crop reports in an easy-to-use portal.
- Required use for Phase III Areas & Nitrogen Reduction Incentive Act (NiRIA) participants. Voluntary for the rest of the district.
- Metrics of success: Producer/ Crop consultant adoption of the process and successfully completed reports submitted. Producers' understanding of the importance of reporting and getting them in on a timely basis.

Bazile Groundwater Management Area Group

- The Bazile Groundwater Management Area (BGMA) is comprised of four NRDs, including the Lewis & Clark NRD, Lower Elkhorn NRD, Lower Niobrara NRD, and the Upper Elkhorn NRD. Within these four NRDs, the BGMA includes parts of three counties: Antelope, Knox, and Pierce, and the towns of Brunswick, Creighton, Orchard, Osmond, Plainview, Royal, Wausa, and Winnetoon. The BGMA was started by local producers and the NRDs to address rising nitrate levels in area communities and domestic wells. Currently, Creighton, Orchard, and Osmond are under administrative orders for high nitrate concentrations in public drinking water.
- The group meets monthly to address issues, with NRDs and local stakeholders from BGMA, NDWEE, NRCS, UNL, NET, and other agencies working on a master plan for the BGMA. The Bazile Creek watershed is impaired due to high nitrate levels and qualifies for NWQI funding through NRCS, which supports BMPs like cover crops, filter strips, and irrigation updates.

Siphoning Nitrate with Irrigated Pasture (SNIP)

- The purpose of the program is to encourage irrigated alfalfa or pasture establishment and management on previous cropland acres to reduce nitrate-nitrogen concentrations in the soil and water. Groundwater containing nitrates is pumped back onto the grass or alfalfa.
- Available in the Bazile Groundwater Management Area (BGMA) of LCNRD & relaunched to include in Wellhead Protection Areas (WHPAs) for Public Water Supply (PWS) Systems across the district in 2025.Max of 160 acres with a 5-year term, reimbursement of 65% actual costs to establish grass seeding; no cost share for establishment of alfalfa.
- Grass incentive payment of $100/ac for each year of the 5-year term; Alfalfa incentive payment of $100/ac for years one and five.

Bow Creek Watershed Project

- LCNRD updated the Water Quality Assessment Plan and added Bow Creek as a priority area based on Nebraska Department of Environment and Energy Basin Rotation water quality testing. The 2016 Basin Rotation water quality testing showed elevated levels of sediment, phosphorus, nitrates, and *E. coli* in Bow Creek. Models were created to show the potential to decrease nonpoint source pollutants in Bow Creek by increasing education opportunities and the voluntary, incentivized adoption of best management practices (BMPs) in priority Bow Creek sub-watersheds.

Nitrogen Reduction Incentive Act Program

- The Nitrogen Reduction Incentive Act Program is a state program promoted by Natural Resources Districts, designed to encourage agricultural producers to implement management practices that reduce nitrogen contamination in Nebraska's groundwater. The program offers technical guidance and financial incentives to landowners who adopt strategies such as improved fertilizer timing, cover cropping, and other best management practices aimed at minimizing nitrate leaching from agricultural fields. By supporting voluntary participation and collaboration with local, state, and federal partners, the Nitrogen Reduction Incentive Act Program works to protect water quality, enhance soil health, and ensure long-term agricultural sustainability for communities of the district.

Buffer Strip Program

- The Buffer Strip Program is a state program administered by Natural Resources Districts that provides financial incentives to landowners for the establishment of vegetative buffer strips along waterways. These strips help filter sediment, nutrients, and agricultural chemicals before they reach Nebraska's streams and rivers, protecting water quality and supporting healthier ecosystems. By partnering with producers and local stakeholders, the program promotes conservation efforts that reduce nonpoint source pollution and contribute to the long-term sustainability of the region’s natural resources.

Well Abandonment Program

- The Sealed Well Abandonment Program is a state initiative managed by Natural Resources Districts to help landowners properly decommission inactive wells, protecting Nebraska’s groundwater and safety. It offers financial incentives and technical support to ensure wells are sealed per regulations, preventing contamination and maintaining water quality. LCNRD partners with local stakeholders and contractors to help residents eliminate environmental hazards, supporting long-term land and community health.

Observation Well Program

- The Observation Well Program is an essential initiative that tracks trends in groundwater quantity and quality across northeast Nebraska. By maintaining a network of strategically placed wells, LCNRD gathers data on water table levels and nitrate concentrations, providing vital information for resource management and conservation efforts. These monitoring activities help detect changes in aquifer conditions, support decisions on water use and protection strategies, and assist local stakeholders in ensuring the long-term sustainability of Nebraska's water resources. In-Situ's Vulink telemetry and transducer units were deployed to collect and transmit real-time water levels, pressure, and temperature data, and a public website is available for viewing these current district water levels.

Irrigation Well Monitoring Program

- The LCNRD Irrigation Well Monitoring Program plays a crucial role in protecting and managing groundwater resources across northeast Nebraska. By systematically measuring water levels and collecting data from permitted irrigation wells, LCNRD helps assess aquifer health, track water usage trends, and ensure a sustainable water supply for agricultural producers and communities. The program's efforts support informed decision-making regarding water allocations, encourage responsible irrigation practices, and help identify emerging concerns related to groundwater declines or contamination. Through ongoing collaboration with landowners and the use of modern monitoring technology, LCNRD works to safeguard Nebraska's vital water resources for both current and future generations. This program is being expanded to include all irrigation wells in the district and domestic wells of willing landowners.

AEM Survey

- Aerial Electromagnetic (AEM) surveys, conducted by the LCNRD and other districts, use advanced technology to map and assess subsurface geology and groundwater resources with precision. By deploying sensors from aircraft, AEM surveys collect data on soil composition, aquifer boundaries, and potential areas of groundwater recharge or contamination. This valuable information helps guide local water management decisions, supports conservation efforts, and enables the district to better understand and protect Nebraska's vital water resources for future generations.

CKRWP

- The Cedar-Knox Rural Water Project (CKRWP) is a regional water supply initiative dedicated to providing safe, high-quality drinking water to rural residents, communities, and businesses across northeast Nebraska. By sourcing, treating, and distributing groundwater through an extensive network of pipelines and infrastructure, CKRWP supports public health, agricultural development, and economic growth while promoting responsible resource management. Through ongoing system maintenance, water quality monitoring, and collaboration with local partners, the program ensures reliable service and long-term sustainability for its customers, helping safeguard vital water resources for future generations.

Wau-Col Project

- The Wau-Col Project is a collaborative initiative focused on enhancing groundwater management and water quality protection within the district. By partnering with local landowners, government agencies, and technical experts, the project aims to implement innovative conservation practices and monitoring strategies that address regional aquifer challenges. Through education, data collection, and targeted support, the Wau-Col Project advances sustainable water resource stewardship, helping ensure the long-term health and availability of groundwater for both agricultural and community needs in northeast Nebraska.

Partnership with UNL-CSD and UNL

- Partnership with the Conservation and Survey Division (CSD), leads several critical initiatives that protect and manage groundwater resources across northeast Nebraska. Through programs such as the Observation Well Network, Irrigation Well Monitoring, Aerial Electromagnetic (AEM) surveys, the Cedar-Knox Rural Water Project (CKRWP), and the Wau-Col Project, LCNRD and CSD collaborate to monitor water quantity and quality, support responsible resource use, and implement innovative conservation practices. By leveraging advanced technologies, maintaining robust data collection efforts, and working closely with local stakeholders, these efforts ensure reliable water supplies, promote public health, and foster the long-term sustainability of Nebraska's vital natural resources.
- Collaboration with UNL-Extension and other UNL departments to seek guidance, gather information, and receive technical support for various projects.

Water Sustainability Fund Award - 2025

- Funds support a water conservation initiative in northeast Nebraska, focusing on improving irrigation efficiency, groundwater data, and water quality. The project offers cost-share support for BMPs such as soil moisture sensors, flow meters, pivot upgrades, and fertigation systems. It promotes conservation crop rotations and a perennial farm to reduce nitrate leaching. Target areas include the Bazile Groundwater Management Area, Bow Creek Watershed, and 16 Wellhead Protection Areas, where nitrate contamination and aquifer depletion threaten water supplies. LCNRD will use telemetry tools for real-time irrigation data, improving decision-making. NET funding will support BMP programs, outreach, and data infrastructure; LCNRD will cover 40% of costs and seek federal funds through USDA RCPP and WaterSMART. The initiative aligns with statewide water sustainability, health, and habitat goals.

Well-Head Protection Area Specialist

- This position assists landowners and farm operators within wellhead protection areas (WHPA) of NDEE, providing information and engaging stakeholders like Certified Water Operators, officials, agronomy firms, and community leaders to improve drinking water quality. Supported through a partnership between LCNRD, LENRD, and NRCS, the Source Water Protection Specialist can maintain a dedicated office in Pierce and/or Stanton, NE, and will spend much time in the field working with stakeholders and at offsite locations within the districts. There are 60 WHPAs covering about 116,454 acres of cropland, with groundwater nitrate levels varying; 37 areas have 0-5 ppm, 18 have 5-8 ppm, and 5 have 8+ ppm.

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Lower Elkhorn Natural Resources District – Groundwater Quality Management Program

The Lower Elkhorn Natural Resources District has utilized numerous mechanisms to address the ever-growing challenges associated with groundwater nitrate. This summary provides a broad overview of the timeline associated with the implementation of specific measures, along with additional information that could be useful to the Water Task Force for implementation statewide.

LENRD Water Quality Monitoring and Vadose Coring Projects
Program Implementation – 1985 – current
Financial Support – LENRD, UNMC, UNL, Nebraska Environmental Trust
Metric for Evaluation – assessment of trendlines for water quality parameters

In the late 1980's the district ramped up efforts to collect water samples to be analyzed for nitrate content and utilized privately owned irrigation wells as a primary sample location given their prevalence throughout the district. As more data became available, specific geographic locations were identified as areas of higher priority for additional sampling if nitrate levels were present at levels of concern. Through successive years of sampling and analysis of water quality data, the LENRD identified a location in Pierce County that warranted additional monitoring and management, and this laid the groundwork for the delineation of the first Phase 2 Groundwater Management Area in December of 1996, designated to protect and improve groundwater quality, and the construction of the first set of LENRD Monitoring Wells in June of 1998 at a location east of Pierce, NE.

Through the years, the annual monitoring of groundwater nitrate has expanded to other parts of the District, and the LENRD will focus sampling efforts on geographic sections to allow for the collection of comprehensive data sets to evaluate groundwater nitrate levels across the district. In the Management Areas, producers are required to sample wells annually and we provide free test kits and lab analysis to support this requirement. Each year, we provide approximately 900 kits which are primarily used in our Pierce County Management Area. This is in addition to the many samples collected by certified sampling technicians from irrigation, monitoring, and domestic wells each year. The LENRD has also expanded the Monitoring Well Network which is now comprised of approximately 85 individual wells located at 53 locations across the NRD. These wells are sampled at a frequency dictated by water chemistry and/or specific monitoring protocol for each site.

Domestic Well Testing Assistance and Reverse Osmosis Cost Share
In 2021, the district also established a Domestic Well Testing Assistance program which provides a no cost alternative for private well owners to utilize. Wells are analyzed for nitrate, bacteria, and a host of agricultural pesticides and their degradants. This program dovetailed with the financial assistance provided by the State of Nebraska and the LENRD to help private well owners with the cost of installing a reverse osmosis treatment system on their well.

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Vadose Coring

The Lower Elkhorn NRD has also been devoting resources to expand the collection of vadose cores throughout the LENRD, with the assistance and cooperation of UNL Conservation and Survey Division. Priority areas include recharge areas for public water supply wells, current and proposed groundwater management areas, and other areas as necessary. These cores are valuable in allowing the District to assess the timing, and amounts, of nitrate contamination by depth in the soil profile. Additional information regarding current and previous land use is also helpful, along with the collection of groundwater quality data and irrigation activity. Isotope analysis is also utilized in an attempt to fingerprint the origin (organic or inorganic) of the contaminant.

Regulatory - LENRD Groundwater Management Areas for Water Quality Protection
Program Implementation – 1994 – current
Financial Support – LENRD
Metric for Evaluation – compliance with requirements, and assessment of water quality trendlines

In 1996, the LENRD delineated its first management area due to levels of nitrate in groundwater wells in portions of the District. Annual groundwater quality monitoring provided sufficient data to recommend the delineation of a Phase 2 Area in a portion of Pierce County, located generally between Pierce and Osmond, NE. Controls were enacted which required annual testing of soil and water for residual nitrate, along with completion of annual field reports to verify annual amounts of nitrogen application, crop yield, and irrigation water applications. The collection of additional water quality data caused the District to expand the Phase 2 Area in 2006 to include all but one township in Pierce County, implementing the same controls as had been enacted in the original Phase 2 Area. In 2019, the District again modified the boundaries of the Phase 2 Area, adding the northern portion of Madison County and a portion of one township in Pierce County which had not before been included. In addition, a portion of the original Phase 2 Area was moved to a Phase 3 Area, as groundwater nitrate concentrations continued to increase in sufficient locations to trigger the change. In addition, the controls for the Phase 2 and 3 Areas were modified to require split applications of nitrogen, allowing no fall application of commercial nitrogen from October 15 to March 15, limiting the amount of nitrogen to no more than 80 pounds per application, and requiring annual testing of soil and water for residual nitrate.

In March of 2021, the LENRD initiated the process of establishing an additional groundwater quality management area in portions of Cuming, Colfax, and Dodge Counties using data provided by the annual nitrate monitoring program. No action has been taken on this matter as additional soil and water testing has been occurring to better define the magnitude of the problem and to define effective controls to provide positive benefits.

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Incentive Based Programs
Program Implementation – 1988 – present
Financial Support – LENRD, NET, EPA, State of Nebraska, Practical Farmers of Iowa, and others
Metric for Evaluation – acres of working lands enrolled in conservation programs aimed at improvements to groundwater quality

To have an impact on groundwater quality, it is necessary to use every tool in the toolbox. The LENRD has long utilized incentive-based programs as a means of addressing the water quality problem. Beginning in the late 1980's with the involvement in the Bazile Triangle, the LENRD has worked to provide resources to incentivize the adoption of conservation practices on working lands and has been successful in achieving some success, though there is still much work to be done. Matching local dollars with funding from State and Federal programs, along with other nongovernmental organization dollars has been instrumental in establishing thousands of acres of cover crops, heightened management under nutrient management plans, or created efficiencies in water use by the adoption of irrigation scheduling tools and techniques, which lend themselves to both water quality and quantity.

The most recent program that was offered by the LENRD was the Nitrogen Reduction Incentive Act program, which will require producers to document reductions in nitrogen application amounts in order to receive program payments.

The use of chemigation as a valuable management practice is another example of the use of a tool that the LENRD had promoted using a cost share program to establish the equipment at a location where the owner/operator had never before used the practice. If established, it allows the grower to apply small amounts of nitrogen in multiple applications – feeding the crop when it needs it and, in the meantime, lessening the risk of environmental contamination.

North Platte Natural Resources District (NPNRD)

Rules and Regulations (required)

Date Launched: December 2024

Description: The NPNRD incorporated new rules for nutrient management beginning in the 2026 water year (Oct 1- Sept30). All producers who irrigate, surface or ground water, are required to take at least one soil sample per 80 acres. Additionally, all groundwater users are required to obtain a water sample at the well or point of distribution.

Funding Source: NPNRD

Metrics/Measurement of Success: compliance

Monitoring Well Sampling

Date Launched: First recorded monitoring well sample was in 1988, an established monitoring well network began in 1998.

Description: The North Platte Natural Resources District has an extensive sampling protocol for our nutrient management plan. We sample approximately 625 wells for nitrates twice a year. Our first sampling event starts in the spring on April 1st. Our second sampling event is in the fall, starting on August 15th. Spring sampling is considered our base line results that we can compare to the fall results after the canal water has started and after the producers have irrigated. We pump water from the wells for 15 minutes before taking the sample to ensure we are getting the water directly from the aquifer. The samples are then put on ice and shipped overnight to an accredited laboratory to analyze.

Funding Source: NPNRD

Metrics/Measurement of Success: Spring sample comparisons

Soil Sample Cost-Share (voluntary)

Date Launched: October 1, 2025

Description: Soil samples must be submitted to the NPNRD. Samples must be georeferenced, collected on a maximum 80 acres, paired, and minimum depth of 24". Cost for acceptable soil samples will be reimbursed at a maximum of $25.00.

Funding Source: NPNRD

Metrics/Measurement of Success: Participation

Water Sample Cost-Share (voluntary)

Date Launched: October 1, 2025

Description: The NPNRD will take ground water samples from producers at the NPNRD office. The NPNRD will charge a $10 fee to take the sample and cover the remaining cost to ship the sample and have the sample analyzed. This should result in an approximate 50% reduction in cost to the producer.

Funding Source: NPNRD

Metrics/Measurement of Success: Participation

Flow Meter Cost-Share (Voluntary)

Date Launched: Approximately 2007

Description: The NPNRD has a cost-share for new and replacement flow meters for meters on the approved list. New meters are cost-shared at 50%.

Funding Source: NPNRD

Metrics/Measurement of Success: Participation

Chemigation Valve Cost Share Program (Voluntary)

Description: The NPNRD has a cost-share for new and replacement chemigation valves. This is a 50% cost-share and covers the valve plus labor up to $400.00.

Funding Source: NPNRD Water Quality Funds

Metrics/Measurement of Success: Participation

Flow Meter Parts & Service (Voluntary)

Date Launched: Approximately 2010

Description: Every serviceable meter is greased, inspected, and gasket replaced every 5 years at a discounted rate.

Funding Source: NPNRD

Metrics/Measurement of Success: Participation

Chemigation Parts (Voluntary)

Description: Chemigation parts are sold through the NRD at a reduced rate. Parts are on hand during inspections to provide in case of need. Additionally, Mister Mister injector and low pressure drain valves are replaced at no cost during inspections if required and are provided in instances of new permits

Funding Source: NPNRD, Water Quality Funds

Metrics/Measurement of Success: Participation

Chemigation Permits (Required)

Description: State statute provides authority to NRDs to issue chemigation permits. A portion of the permit fees are provided to DWEE.

Funding Source: NPNRD

Metrics/Measurement of Success: Compliance

NiRIA (Voluntary)

Date Launched: October 1, 2024

Description: The NPNRD assists in the administration of DWEE NiRIA program. A one time payment is available for reduction of 40lbs/acre or 15% of baseline nitrogen application rate.

Funding Source: DWEE

Metrics/Measurement of Success: Participation

Domestic Well Testing (Voluntary)

Date Launched:

Description: The NPNRD will test domestic wells upon request at no charge.

Funding Source: NPNRD Water Quality Funds

Metrics/Measurement of Success: Participation

Well Decommissioning Cost-Share Program (Voluntary)

Date Launched:

Description: The NPNRD provides cost-share to individuals wishing to decommission a well at a rate of 75%.

Funding Source: NPNRD

Metrics/Measurement of Success: Participation